



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

## NOTICE OF ACCEPTANCE (NOA)

SLAS INC.

13690 SW 142<sup>nd</sup> Avenue #28  
Miami, Florida 33186

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

### DESCRIPTION: "Delta-301" Aluminum Accordion Shutter System

**APPROVAL DOCUMENT:** Drawing No. 10-07, titled "Delta-301 Aluminum Accordion Shutter", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #C dated July 27, 2016, signed and sealed by Javad Ahmad, P.E., on August 01, 2016, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises & renews NOA # 14-1103.03 and consists of this page 1, evidence submitted pages E-1, E-2 & E-3 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



*Helmy A. Makar*  
09/15/2016

NOA No. 16-0712.01  
Expiration Date: 09/15/2021  
Approval Date: 09/15/2016  
Page 1

**SLAS INC.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 11-0112.01**

**A. DRAWINGS**

1. *Drawing No. 10-07, titled " Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, prepared by Al-Farooq Corporation, dated December 06, 2010, signed and sealed by Javad Ahmad, P.E., on September 07, 2011.*

**B. TESTS**

1. *See Association's generic approval under 10-1211.*

**C. CALCULATIONS**

1. *See Association's generic approval under 10-1211.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Building and Neighborhood Compliance Department (BNC).*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 10-1211.*

**F. STATEMENTS**

1. *Release letter issued by the Delta Shutter Group & Associates, Inc., dated September 07, 2011, certifying this product to meet the criteria of product tested and approved, and allowing SLAS INC. to use the test results approved under Miami-Dade County Approval No. 10-1211, signed by Ms. Gabriela Gonzalez.*
2. *Acknowledgment letter by SLAS INC. dated September 07, 2011, signed by Ms. Gabriela Gonzalez.*
3. *Letter by Al-Farooq Corporation, dated January 07, 2011, certifying that the drawing (No. 10-07) prepared for SLAS INC., signed and sealed by Javad Ahmad, P.E., is engineering wise identical to Delta Shutter's generic drawing (No. 10-05).*


**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 12-0215.04**

**A. DRAWINGS**

1. *Drawing No. 10-07, titled "Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #A dated February 01, 2012, signed and sealed by Javad Ahmad, P.E., on March 20, 2012.*

**B. TESTS**

1. *See Association's generic approval under 12-0103.*

  
\_\_\_\_\_  
**Helmy A. Makar, P.E., M.S.**  
**Product Control Section Supervisor**  
**NOA No. 16-0712.01**  
**Expiration Date: 09/15/2021**  
**Approval Date: 09/15/2016**

**SLAS INC.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**C. CALCULATIONS**

1. *See Association's generic approval under 12-0103.*

**D. QUALITY ASSURANCE**

1. *By Miami-Dade County Department OF Permitting, Environment, and Regulatory Affairs (PERA).*

**E. MATERIAL CERTIFICATIONS**

1. *See Association's generic approval under 12-0103.*

**F. STATEMENTS**

1. *Release letter issued by the Delta Shutter Group & Associates, Inc., dated February 08, 2012, certifying this product to meet the criteria of product tested and approved, and allowing SLAS INC. to use the test results approved under Miami-Dade County Approval No. 12-0103, signed by Ms. Gabriela Gonzalez.*
2. *Acknowledgment letter by SLAS INC., 02/08/2012, signed by Ms. Gabriela Gonzalez.*
3. *Letter by Al-Farooq Corporation, dated March 13, 2012, certifying that the drawing (No. 10-07) prepared for SLAS INC., signed and sealed by Javad Ahmad, P.E., is engineering wise identical to Delta Shutter's generic drawing (No. 10-05).*

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 14-1103.03**

**A. DRAWINGS:**

1. *Drawing No. 10-07, titled "Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated 12/06/2010, last revision #B dated 10/20/2014, signed and sealed by Javad Ahmad, P.E., on 10/28/2014.*

**B. TESTS:**

1. *None.*

**C. CALCULATIONS:**

1. *Anchor calculation, dated October 17, 2014, 64 sheets, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., on October 28, 2014.*

**D. QUALITY CONTROL**

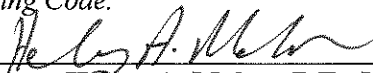
1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATION:**

1. *None.*

**F. OTHERS**

1. *Letter prepared by Al-Farooq Corporation, dated October 17, 2014, signed and sealed by Javad Ahmad, P.E., on October 28, 2014, certifying that drawing #10-07 is in compliance with the 2014 Edition of the Florida Building Code.*



**Helmy A. Makar, P.E., M.S.**

**Product Control Section Supervisor**

**NOA No. 16-0712.01**

**Expiration Date: 09/15/2021**

**Approval Date: 09/15/2016**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**4. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS:**

1. *Drawing No. 10-07, titled " Delta-301 Aluminum Accordion Shutter ", sheets 1 through 11 of 11, and sheet 7.1, prepared by Al-Farooq Corporation, dated December 06, 2010, last revision #C dated July 27, 2016.*

**B. TESTS:**

1. *None.*

**C. CALCULATIONS:**

1. *None.*

**D. QUALITY CONTROL**

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

**E. MATERIAL CERTIFICATION:**

1. *None.*

**F. OTHERS**

1. *Letter prepared by Al-Farooq Corporation, dated July 28, 2016, signed and sealed by Javad Ahmad, P.E., on August 01, 2016, certifying that drawing #10-07 is in compliance with the 2014 Edition of the Florida Building Code.*



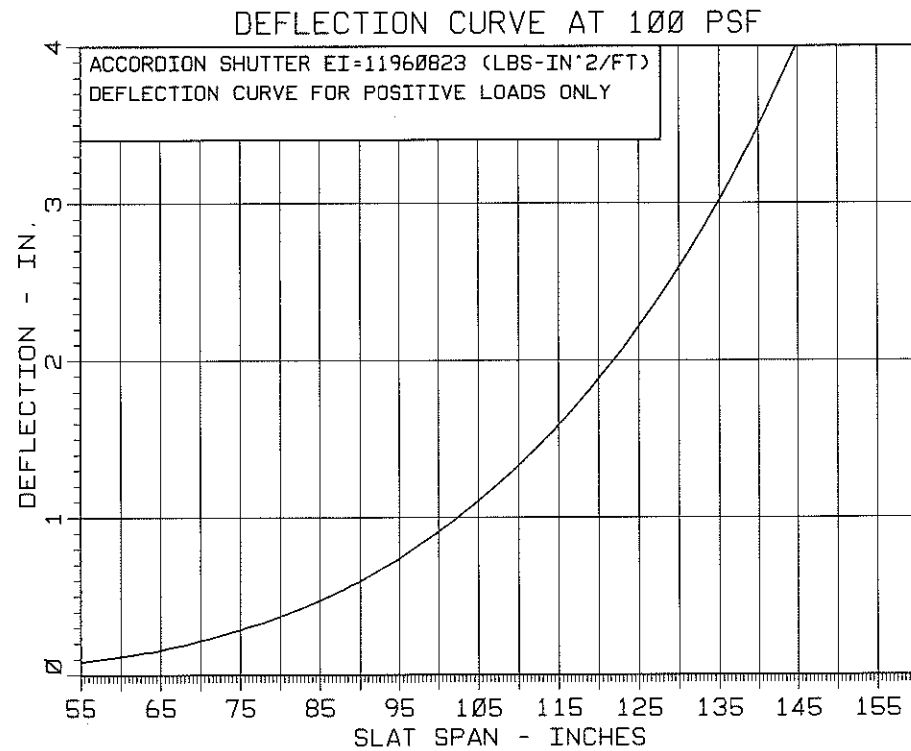
**Helmy A. Makar, P.E., M.S.**

**Product Control Section Supervisor**

**NOA No. 16-0712.01**

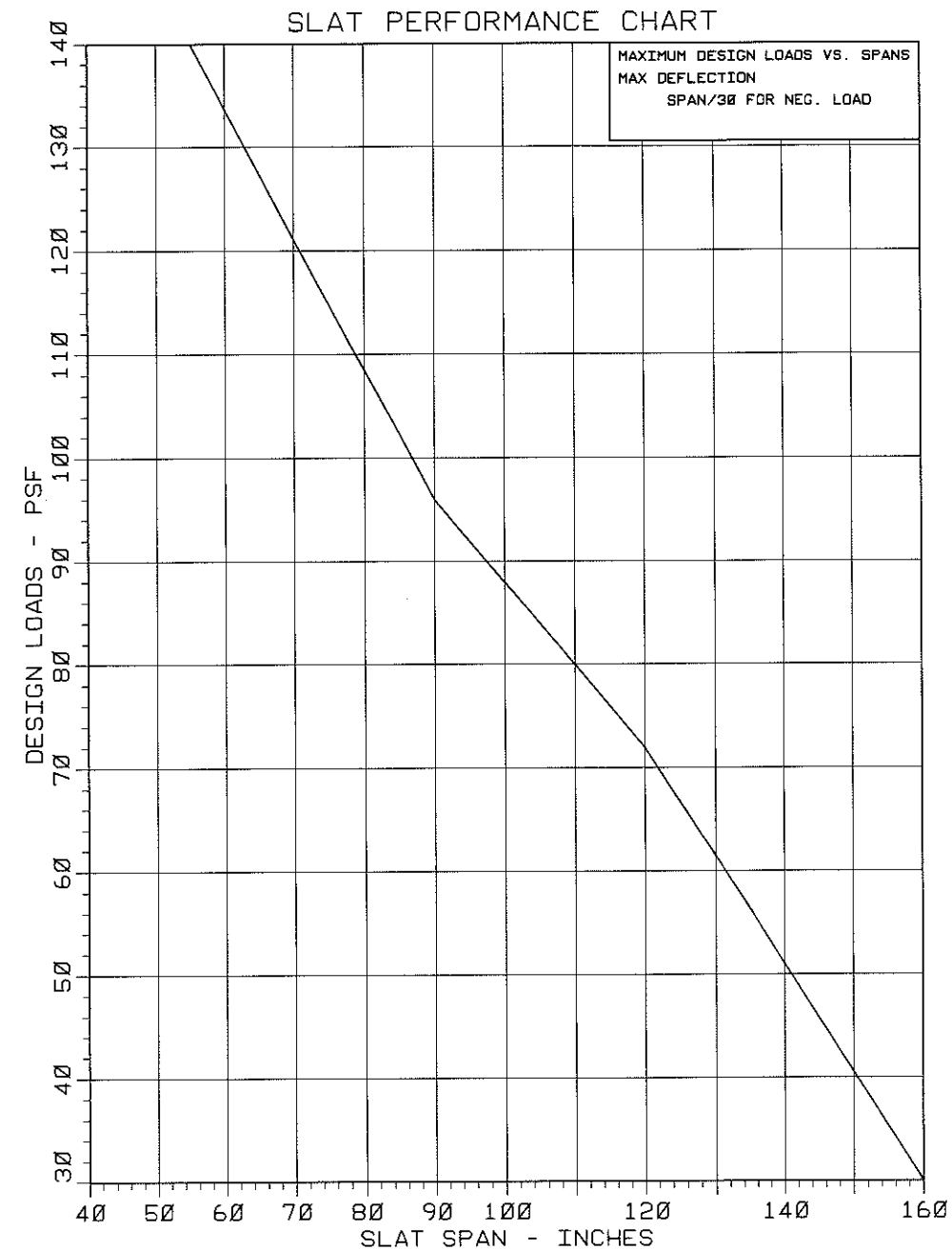
**Expiration Date: 09/15/2021**

**Approval Date: 09/15/2016**



MINIMUM SEPARATION FROM GLASS			
SEPARATION REQD. DUE TO WIND LOAD USE CHART ABOVE		SEPARATION REQD. DUE TO LARGE MISSILE IMPACT	
SHUTTER SPAN = H =	IN.	FOR SLAT SPANS UPTO	SEPARATION
DESIGN LOAD = Pd =	PSF		
FACTOR = K = Pd/100 =	IN.		
READING FROM SPAN D. CURVE = D =	IN.		
DEFLECTION AT Pd = K*D =	IN.		
MIN. SEPARATION REQD. = K*D+1" =	IN.	96"	2-3/4"
		120"	3-1/4" *
		160"	4-3/8"
FOR INSTALLATIONS UPTO 30' OF GRADE USE MAXIMUM OF WIND LOAD OR IMPACT LOAD REQUIREMENTS SHOWN ABOVE			
FOR INSTALLATIONS ABOVE 30' OF GRADE IGNORE LARGE MISSILE IMPACT REQUIREMENT.			
NOTE: NO PART OF SHUTTER SHALL BE UNDER 30' ABOVE GRADE TO WAIVE LARGE MISSILE IMPACT REQUIREMENT.			

\* LIMIT GLASS SEPARATION TO 3-1/2" WHEN CEILING HEADERS WITH BUILT OUT ANGLES ARE USED IN COMBINATION WITH SILL TRACK WITH ADAPTER.



USE SLAT PERFORMANCE CHART TO VERIFY SLAT CAPACITY FOR THE REQUIRED DESIGN LOAD FOR THE PARTICULAR LOCATION.

DESIGN LOADS SHALL BE CALCULATED AS PER REQUIREMENTS OF ASCE 7-10.

#### GENERAL NOTES

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2014 (5TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- DESIGN CRITERIA FOR ALUMINUM, MINIMUM MECHANICAL PROPERTIES, AND SAFETY FACTORS ARE IN ACCORDANCE WITH THE "ALUMINUM CONSTRUCTION MANUAL" LATEST EDITION.
- ALUMINUM ALLOYS: ALL EXTRUSIONS SHALL BE ALLOY AS SHOWN WITH MIN. YIELD STRESS  $F_y = 32081$  PSI
- STEEL SURFACES TO BE PLACED IN CONTACT WITH ALUMINUM SHALL BE GIVEN ONE COAT OF ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPEC. NO. TTP-645, OR BE GALVANIZED.
- ANCHORS SHALL BE AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ALL BOLTS SHALL BE STAINLESS STEEL, ALUMINUM ALLOY 2024-T4 OR 7075-T6, OR PLATED STEEL. WING NUTS TO BE OF ZINC ALLOY.
- DESIGN CRITERIA FOR SLATS: MAX DEFLECTION  $\leq$  THE LESSER OF L/30 OR 2".
- ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

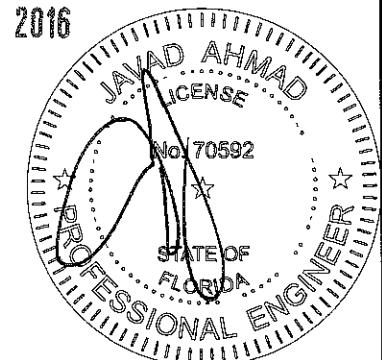
#### PRODUCT MARKING

A LABEL SHALL BE AFFIXED ON LOCKING MEMBER OF UNIT ABOVE LOCK WITH THE FOLLOWING STATEMENT.

SLAS INC.  
'MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED'

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0717-01  
Expiration Date 09/15/2021  
By: *[Signature]*  
Miami Dade Product Control

AUG 01 2016



FOR INSTALLATION DETAILS SEE SHEETS 3 THRU 6.

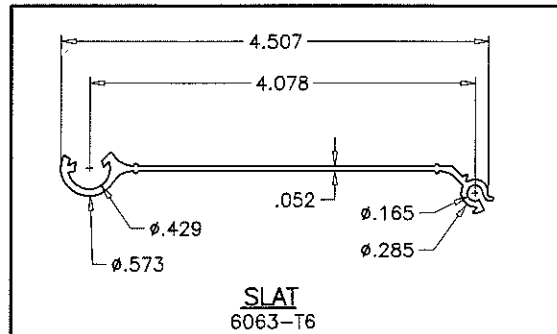
**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL (305) 264-8100 FAX (305) 262-6978  
ACCORDION/10-07SOSF

DELTA-301 ALUMINUM ACCORDION SHUTTER  
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL (305) 225-1393 FAX (305) 225-1322

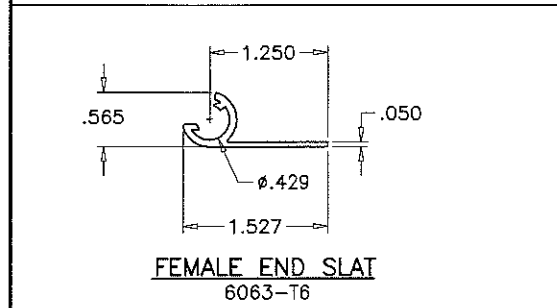
revisions:	no	date	by	description
	A	02.01.12		UPDATED TO 2010 FBC
	B	10.20.14		UPDATED TO 2014 FBC
	C	07.27.16		EDITORIAL CHANGES

date:	12-06-10
scale:	1/2" = 1"
dr. by:	HAMID
chk. by:	

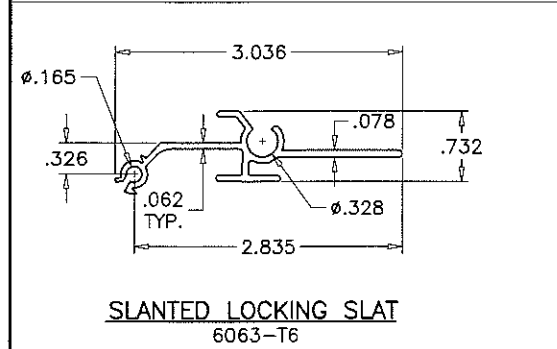
drawing no.  
**10-07**  
sheet 1 of 11



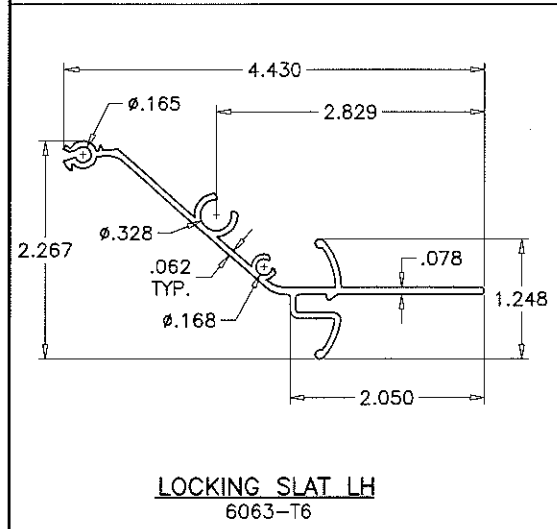
SLAT  
6063-T6



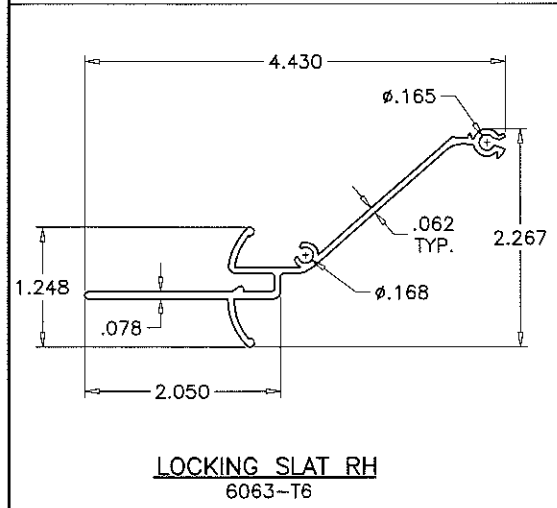
FEMALE END SLAT  
6063-T6



SLANTED LOCKING SLAT  
6063-T6



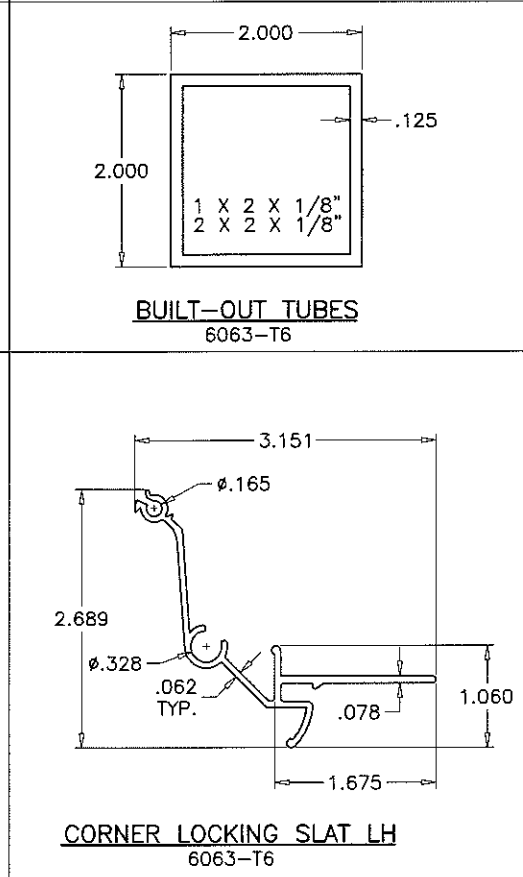
LOCKING SLAT LH  
6063-T6



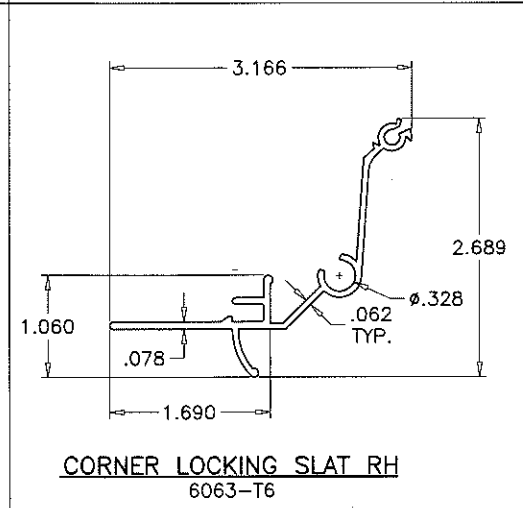
LOCKING SLAT RH  
6063-T6



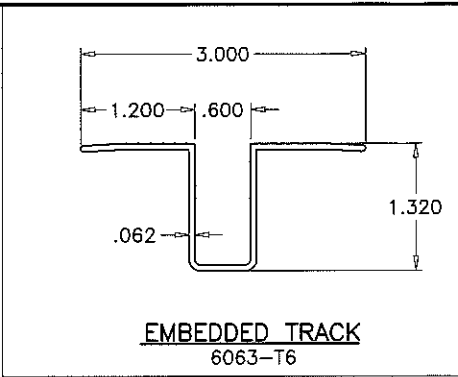
BUILT-OUT TUBES  
6063-T6



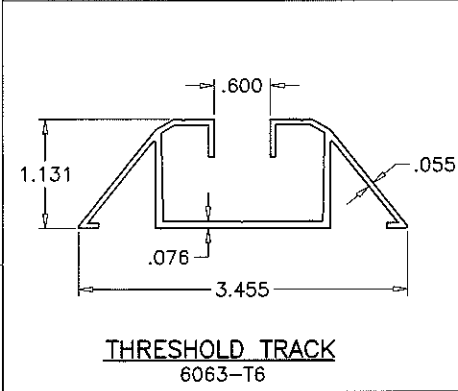
CORNER LOCKING SLAT LH  
6063-T6



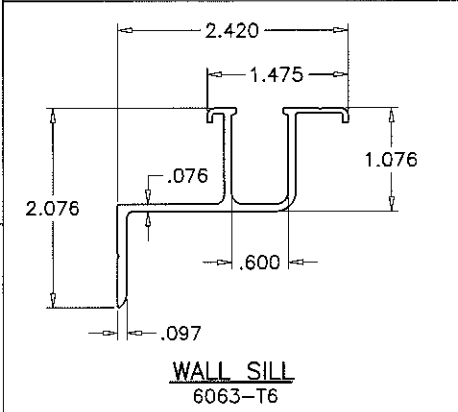
CORNER LOCKING SLAT RH  
6063-T6



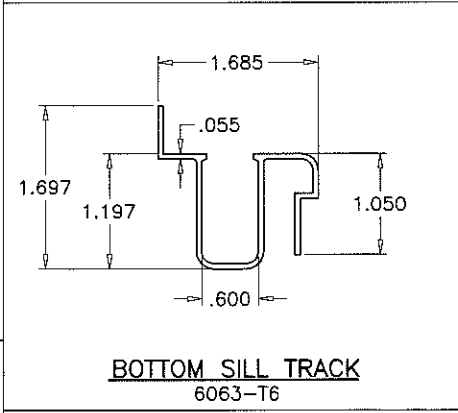
EMBEDDED TRACK  
6063-T6



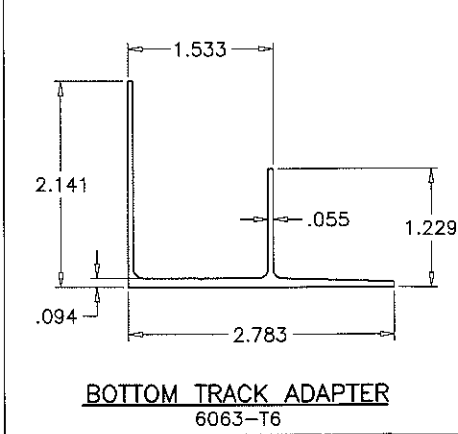
THRESHOLD TRACK  
6063-T6



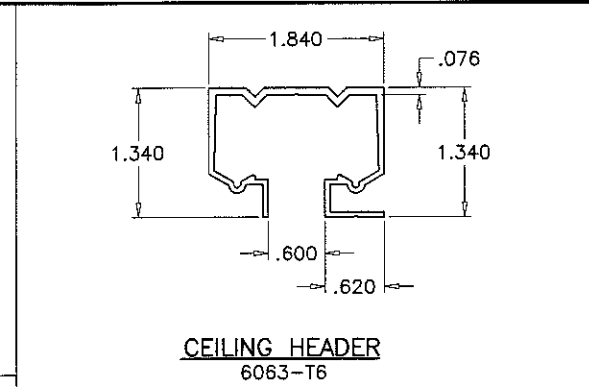
WALL SILL  
6063-T6



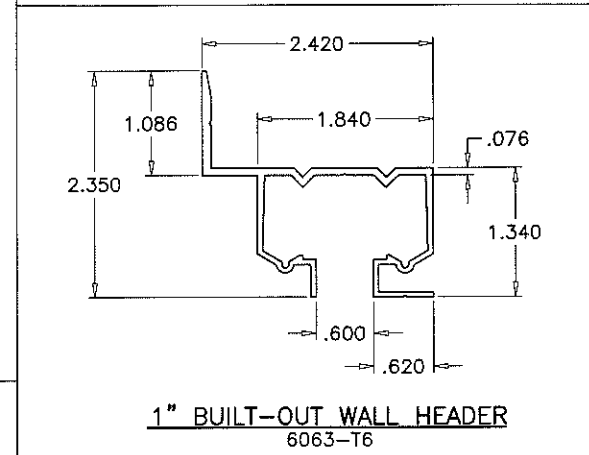
BOTTOM SILL TRACK  
6063-T6



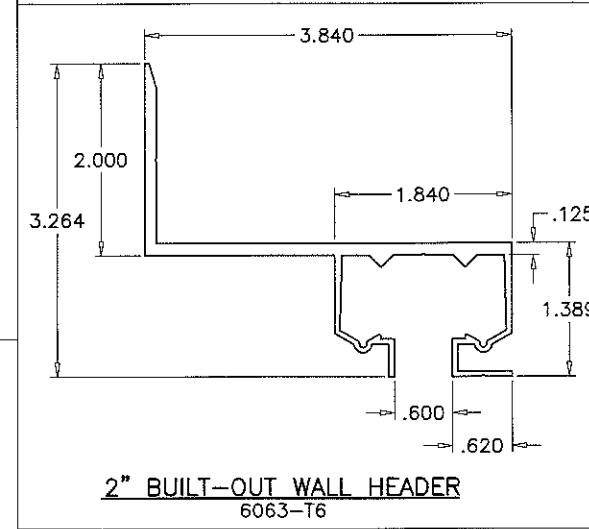
BOTTOM TRACK ADAPTER  
6063-T6



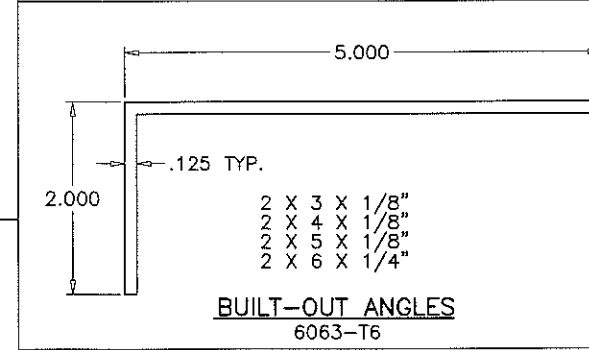
CEILING HEADER  
6063-T6



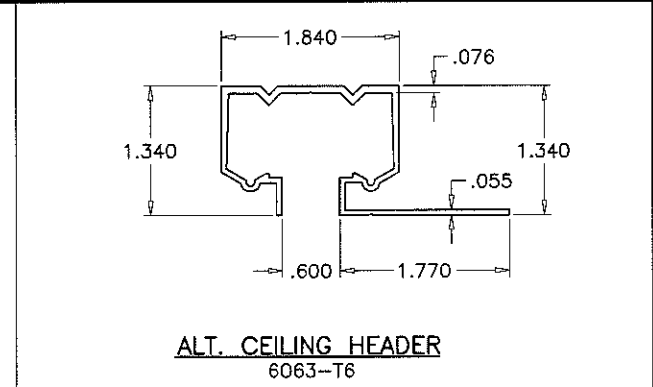
1" BUILT-OUT WALL HEADER  
6063-T6



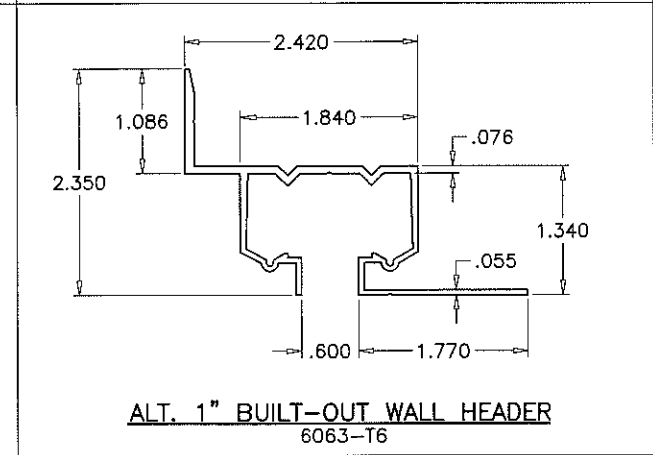
2" BUILT-OUT WALL HEADER  
6063-T6



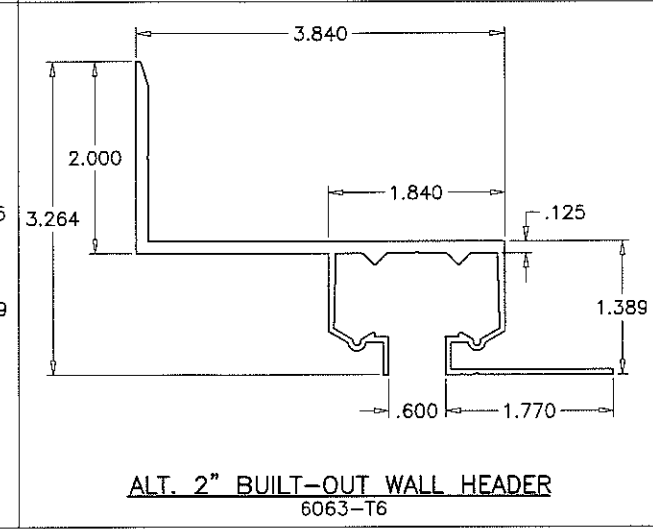
BUILT-OUT ANGLES  
6063-T6



ALT. CEILING HEADER  
6063-T6



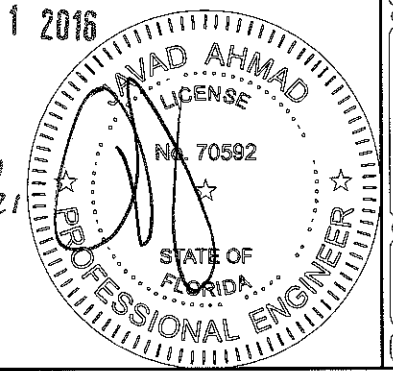
ALT. 1" BUILT-OUT WALL HEADER  
6063-T6



ALT. 2" BUILT-OUT WALL HEADER  
6063-T6

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712.01  
Expiration Date 09/15/2021  
By: *Healy A. Mohr*  
Miami Dade Product Control

AUG 01 2016



**a f c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
C.A.N. 3538  
ACCORDION/10-07SOSF

DELTA-301 ALUMINUM ACCORDION SHUTTER  
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL(305) 225-1393 FAX(305) 225-1322

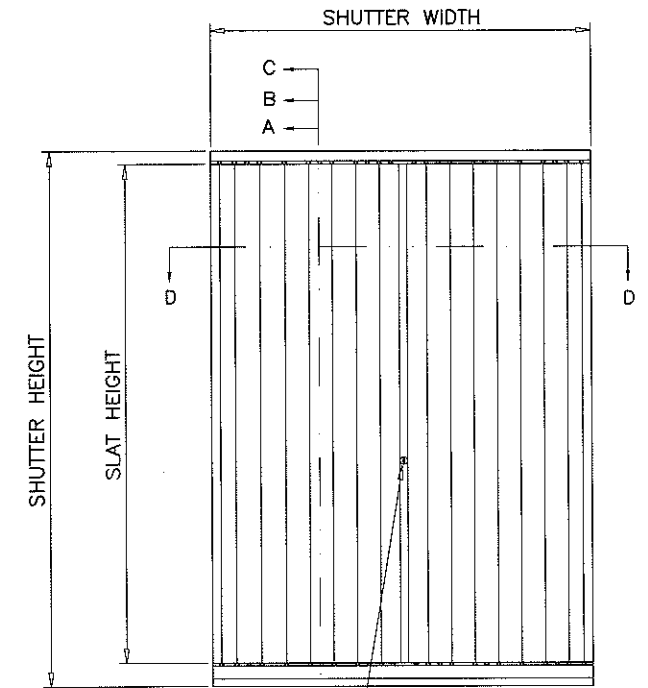
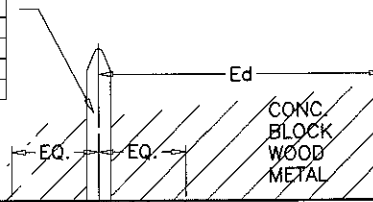
revisions:		by	description
no	date		
A	02.01.12		NO CHANGE THIS SHEET
B	10.20.14		NO CHANGE THIS SHEET
C	07.27.16		EDITORIAL CHANGES
date: 12-06-10		scale: 1/2" = 1"	
dr. by: HAMID		chk. by:	
drawing no.		10-07	
sheet 2 of 11			

# WALL MOUNTS

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	5	1	-	-
B	5	1	-	-
C	3	1.1	-	-
D	-	-	5	-
E	-	-	-	3

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	1.1	-	-
B	7	1.1	-	-
C	4	3	-	-
D	-	-	4	-
E	-	-	-	4

# INSIDE MOUNTS



TYPICAL ELEVATION

.49" DIA. X .35" LONG  
NYLON HAT BUSHING  
W/ .45" DIA. X .45" LONG  
NYLON BUSHING  
WITH STEEL WASHERS  
AT ROLLER HOUSING  
AND  
3/8" DIA. X .65" LONG  
NYLON BUSHING  
WITH ST. WASHERS  
AT INTERMEDIATE LOCATIONS

#10 X 3" ST/ST M.S.  
AT ROLLER HOUSING  
AND  
#10 X 2" ST/ST M.S.  
AT INTERMEDIATE LOCATIONS

#10 X 3" ST/ST M.S.  
TYP.  
NYLON BUSHING  
W/ STEEL WASHER  
3/8" DIA. X .89" LONG

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	1	-	-
B	5	1	-	-
C	3	1.1	-	-
D	-	-	5	-
E	-	-	-	2

SECTION A-A

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	7	3	-	-
B	7	3	-	-
C	5	4	-	-
D	-	-	5	-
E	-	-	-	6

SECTION B-B

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	1	-	-
B	5	1	-	-
C	3	2	-	-
D	-	-	4	-
E	-	-	-	3

3/16" ALUM POP RIVETS  
OR  
#10 X 5/8" TEKS  
AT 6" O.C.

3/16" ALUM POP RIVETS  
OR  
#10 X 1/2" TEKS  
AT 6" O.C.

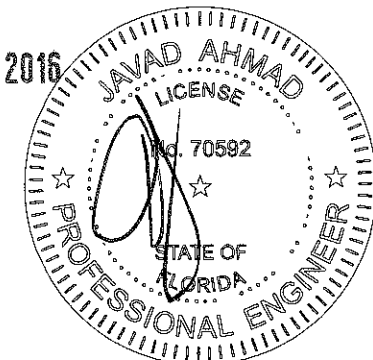
FOR GENERAL NOTES AND EXTRUSION DETAILS SEE SHEETS 1 & 2.  
FOR WOOD INSTALLATIONS SEE SHEET 8.

Ed = TYPICAL EDGE DISTANCE  
CONC. & BLOCK = 10d (10 ANCHOR DIAMETERS)  
WOOD = 4d  
FOR LESSER EDGE DISTANCES SEE SHEET 9.

HEADER AND SILL DETAILS CAN BE  
USED IN ANY COMBINATIONS.

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712-01  
Expiration Date 09/15/2021  
By *Healy*  
Miami Data Product Control

AUG 01 2016

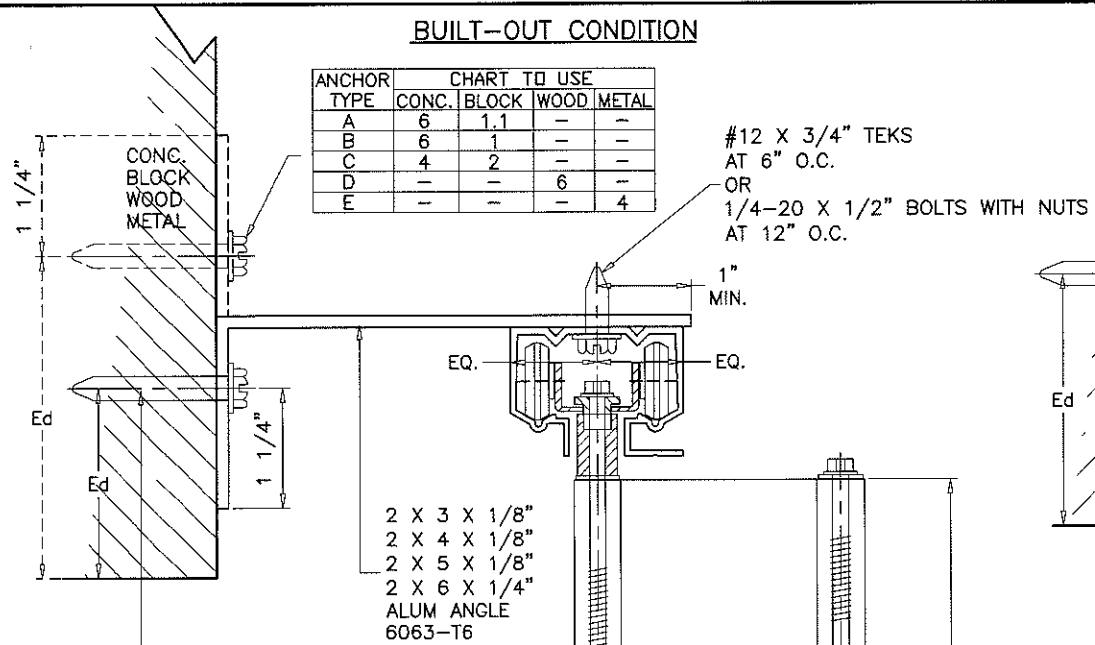


**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
C.A.N. 3538

DELTA-301 ALUMINUM ACCORDION SHUTTER  
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL(305) 225-1393 FAX(305) 225-1322

revisions:	no	date	by	description
	A	02.01.12		NO CHANGE THIS SHEET
	B	10.20.14		UPDATED TO 2014 FBC
	C	07.27.16		EDITORIAL CHANGES

date: 12-06-10  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:  
drawing no.  
10-07  
sheet 3 of 11



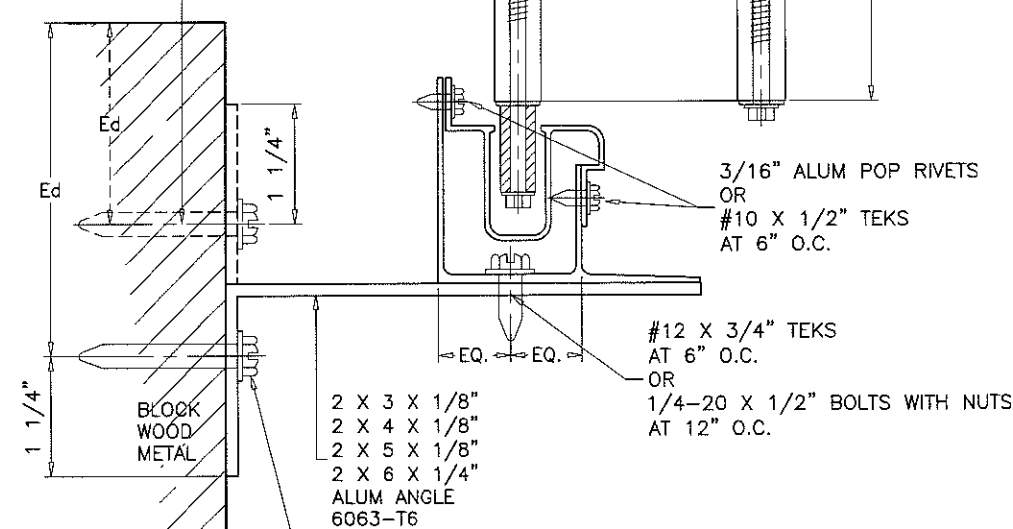
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	1.1	-	-
B	6	1	-	-
C	4	2	-	-
D	-	-	6	-
E	-	-	-	4

#12 X 3/4\"  
AT 6\" O.C.  
OR  
1/4-20 X 1/2\" BOLTS WITH NUTS  
AT 12\" O.C.

2 X 3 X 1/8\"  
2 X 4 X 1/8\"  
2 X 5 X 1/8\"  
2 X 6 X 1/4\"  
ALUM ANGLE  
6063-T6

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	7	4	-	-
B	8	3	-	-
C	6	4	-	-
D	-	-	8	-
E	-	-	-	5

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	1.1	-	-
B	7	1.1	-	-
C	4	3	-	-
D	-	-	7	-
E	-	-	-	4



2 X 3 X 1/8\"  
2 X 4 X 1/8\"  
2 X 5 X 1/8\"  
2 X 6 X 1/4\"  
ALUM ANGLE  
6063-T6

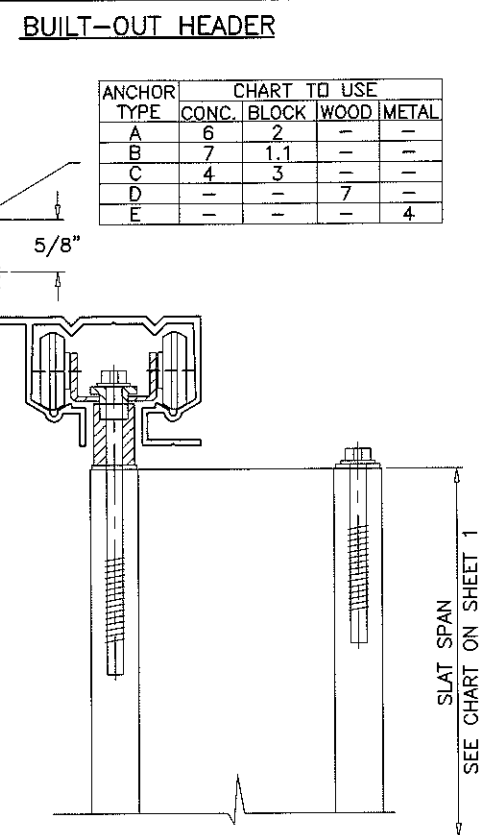
3/16\"  
ALUM POP RIVETS  
OR  
#10 X 1/2\" TEKS  
AT 6\" O.C.

#12 X 3/4\"  
AT 6\" O.C.  
OR  
1/4-20 X 1/2\" BOLTS WITH NUTS  
AT 12\" O.C.

ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	5	1.1	-	-
B	6	1	-	-
C	4	1.1	-	-
D	-	-	6	-
E	-	-	-	3

SECTION C-C

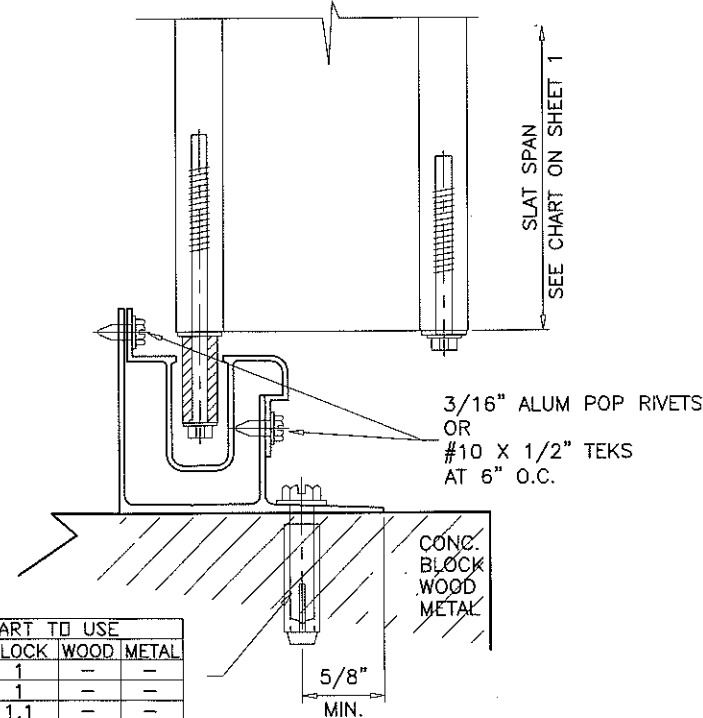
SLAT SPAN  
SEE CHART ON SHEET 1



ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	6	2	-	-
B	7	1.1	-	-
C	4	3	-	-
D	-	-	7	-
E	-	-	-	4

1 X 2 X 1/8\"  
2 X 2 X 1/8\"  
ALUM TUBE

SLAT SPAN  
SEE CHART ON SHEET 1



3/16\"  
ALUM POP RIVETS  
OR  
#10 X 1/2\" TEKS  
AT 6\" O.C.

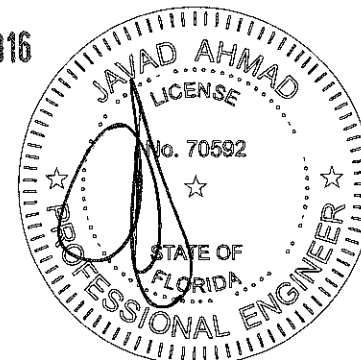
ANCHOR TYPE	CHART TO USE			
	CONC.	BLOCK	WOOD	METAL
A	4	1	-	-
B	4	1	-	-
C	3	1.1	-	-
D	-	-	4	-
E	-	-	-	3

ADJUSTABLE SILL

HEADER AND SILL DETAILS CAN BE  
USED IN ANY COMBINATIONS.

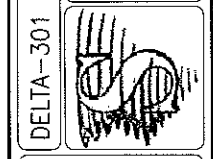
AUG 01 2016

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712-01  
Expiration Date 09/15/2021  
By: *[Signature]*  
Miami Design Product Control



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
C.A.N. 3538

DELTA-301 ALUMINUM ACCORDION SHUTTER  
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL(305) 225-1393 FAX(305) 225-1322



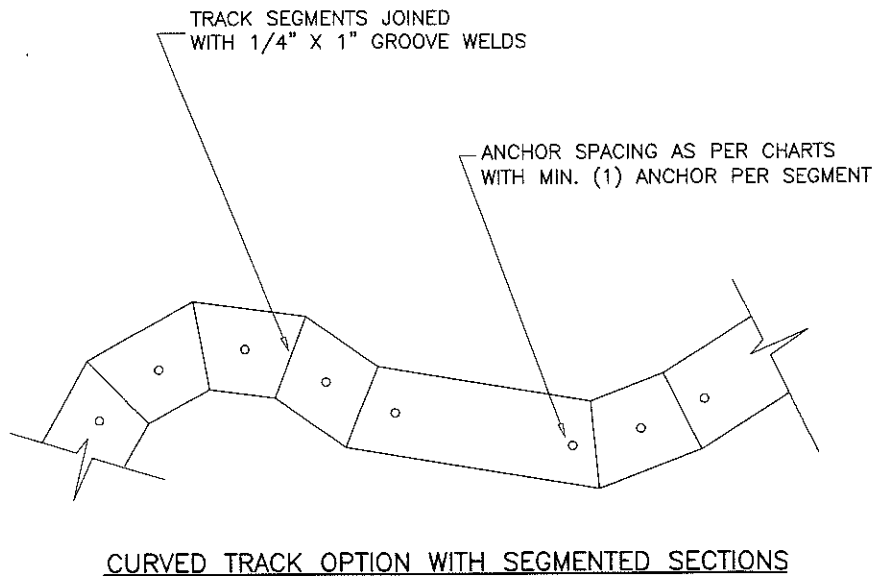
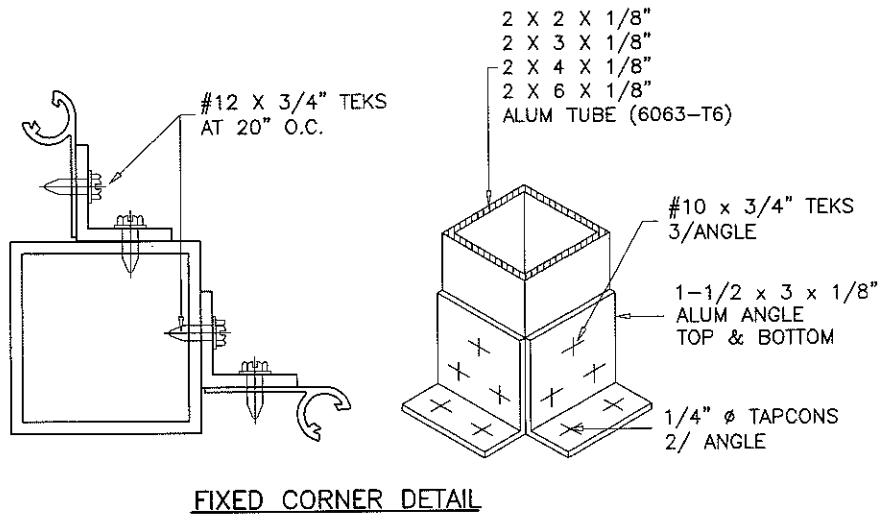
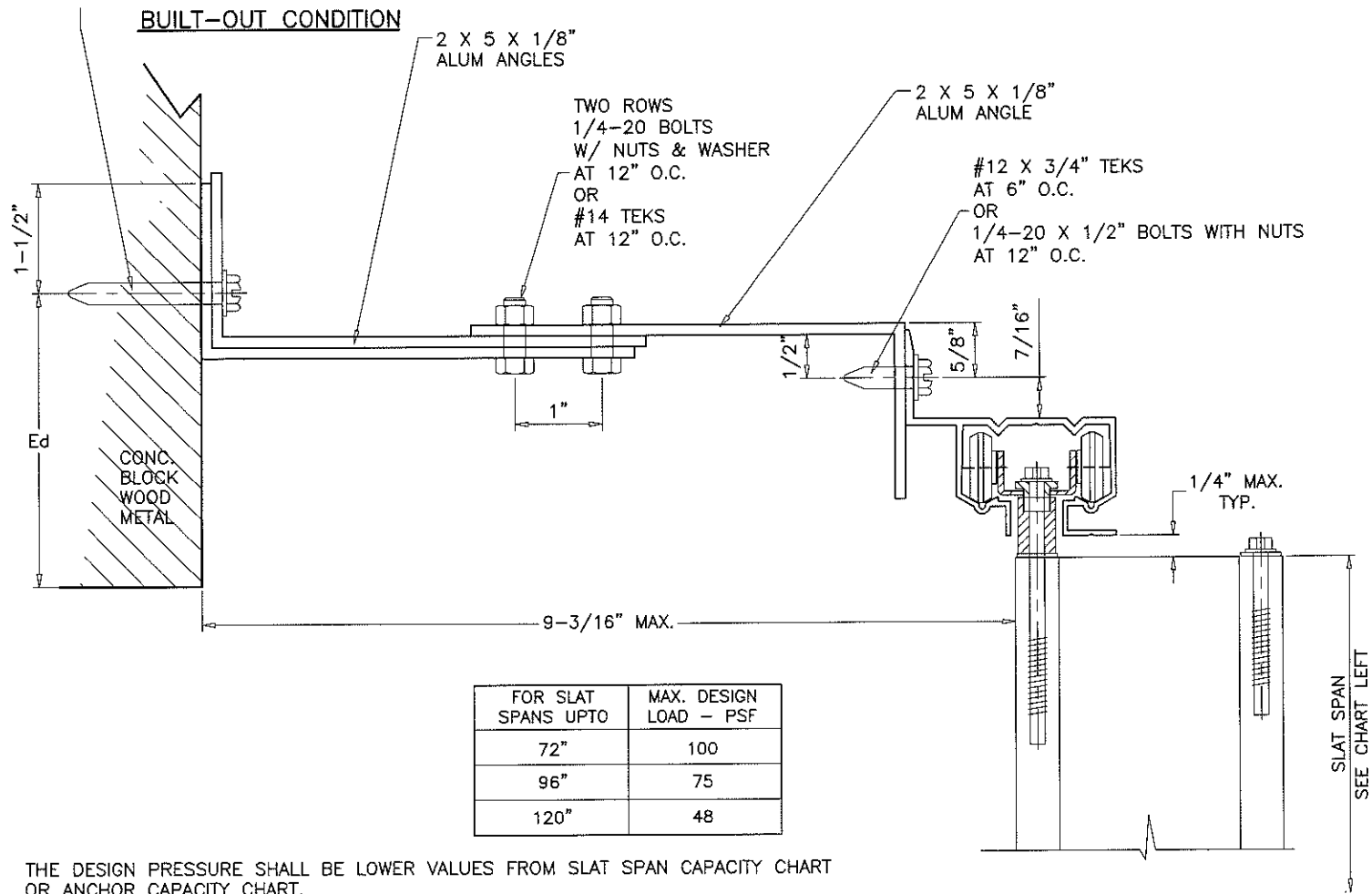
revisions:	no.	date	by	description
	A	02.01.12		NO CHANGE THIS SHEET
	B	10.20.14		UPDATED TO 2014 FBC
	C	07.27.16		EDITORIAL CHANGES

date: 12-06-10  
scale: 1/2\" = 1\"  
dr. by: HAMID  
chk. by:  
drawing no.  
10-07  
sheet 4 of 11

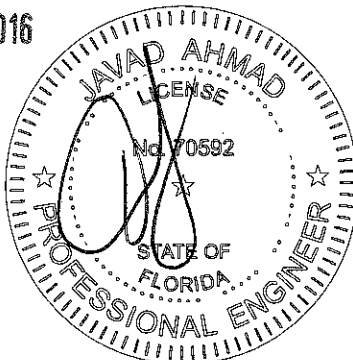




ANCHOR TYPE	ANCHOR SPACING INCHES															
	UPTO 40 PSF				UPTO 50 PSF				UPTO 60 PSF				UPTO 70 PSF			
A	8.3	—	—	—	6.6	—	—	—	5.5	—	—	—	4.7	—	—	—
B	9	—	—	—	7.2	—	—	—	6.0	—	—	—	5.2	—	—	—
D	—	—	11.1	—	—	—	8.9	—	—	—	7.4	—	—	—	6.3	—
E	—	—	—	5.3	—	—	—	4.3	—	—	—	3.6	—	—	—	3



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712.01  
Expiration Date 09/15/2021  
By: *[Signature]*  
Miami Data Product Control



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978  
C.A.N. 3538

DELTA-301 ALUMINUM ACCORDION SHUTTER

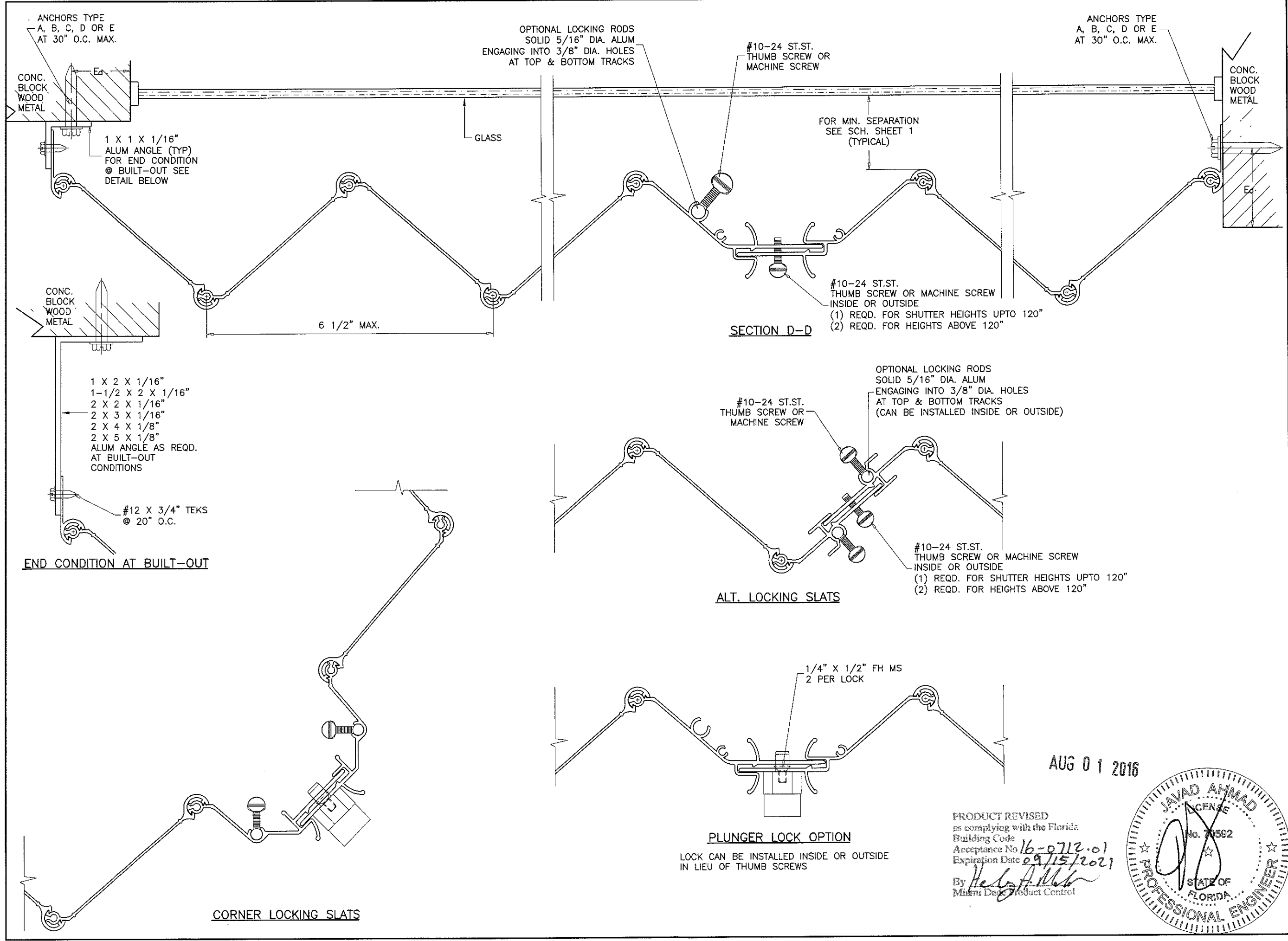
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL(305) 225-1393 FAX(305) 225-1322

revisions:

no	date	by	description
A	02.01.12		NO CHANGE THIS SHEET
B	10.20.14		UPDATED TO 2014 FBC
C	07.27.16		EDITORIAL CHANGES

date: 12-06-10  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
10-07  
sheet 6 of 11



**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173  
 TEL. (305) 264-8100 FAX. (305) 262-6978

**af c**

ACCORDION/10-07SOSF

**DELTA-301 ALUMINUM ACCORDION SHUTTER**

**SLAS INC.**  
 13690 S.W. 142 AVE. #28  
 MIAMI, FL. 33186  
 TEL(305) 225-1393 FAX(305) 225-1322

revisions:

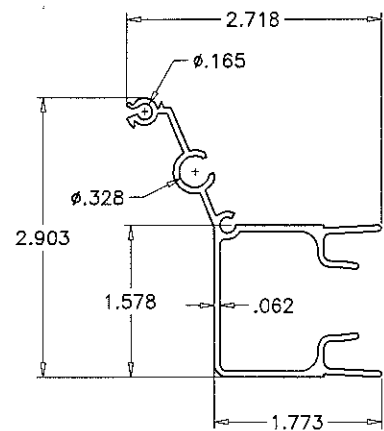
no	date	by	description
A	02.01.12		NO CHANGE THIS SHEET
B	10.20.14		NO CHANGE THIS SHEET
C	07.27.16		EDITORIAL CHANGES

date: 12-06-10  
 scale: 1/2" = 1"  
 dr. by: HAMID  
 chk. by:

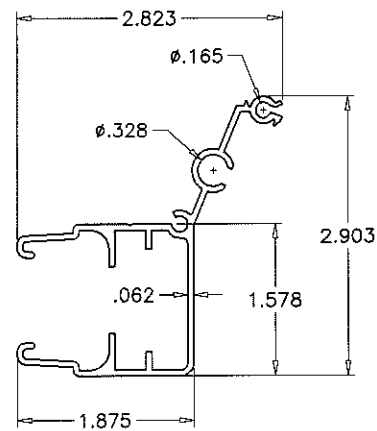
drawing no.  
**10-07**  
 sheet 7 of 11

PRODUCT REVISED as complying with the Florida Building Code  
 Acceptance No **16-0712-01**  
 Expiration Date **09/15/2021**  
 By *Healy*  
 Miami Design Product Control

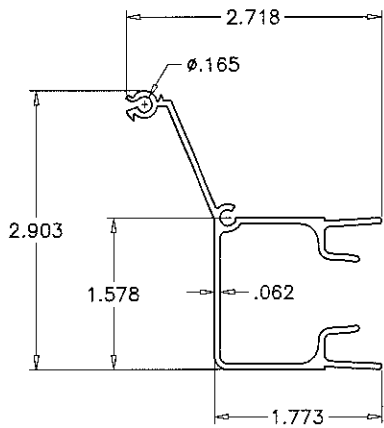
**AUG 01 2016**



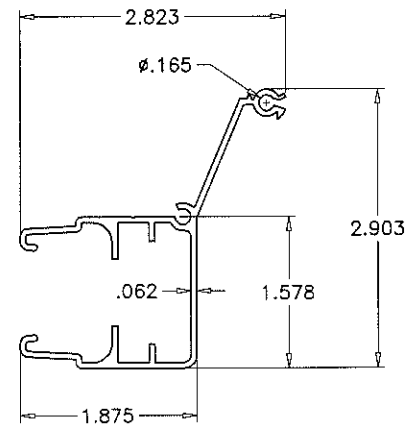
**FEMALE LOCKING SLAT TYPE 1**  
6063-T6



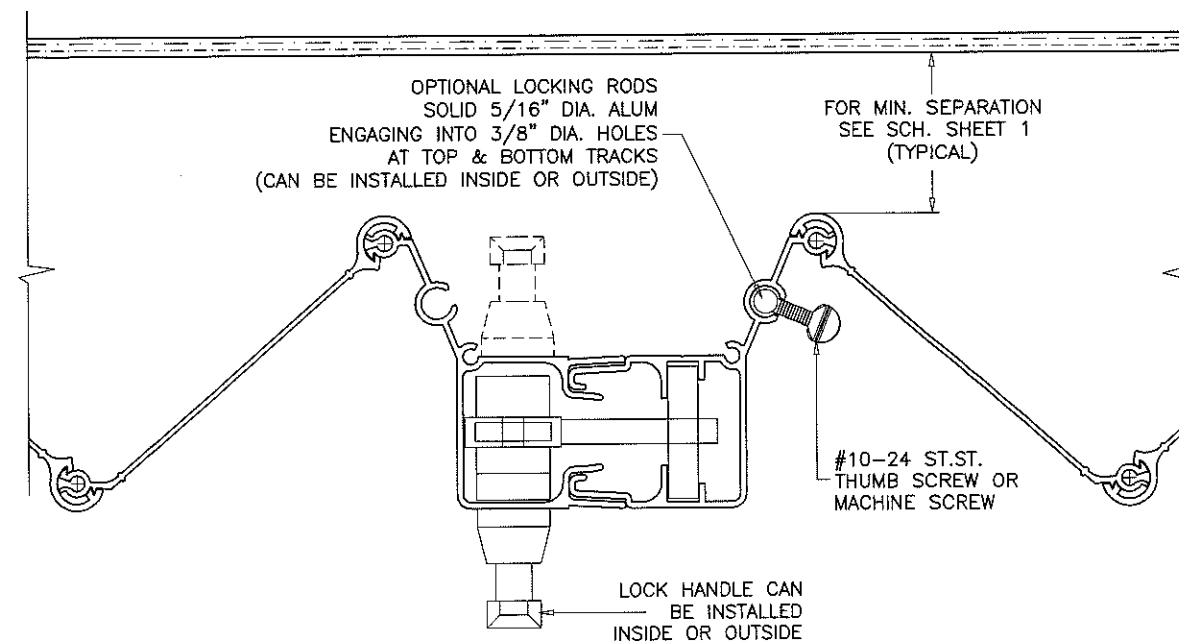
**MALE LOCKING SLAT TYPE 1**  
6063-T6



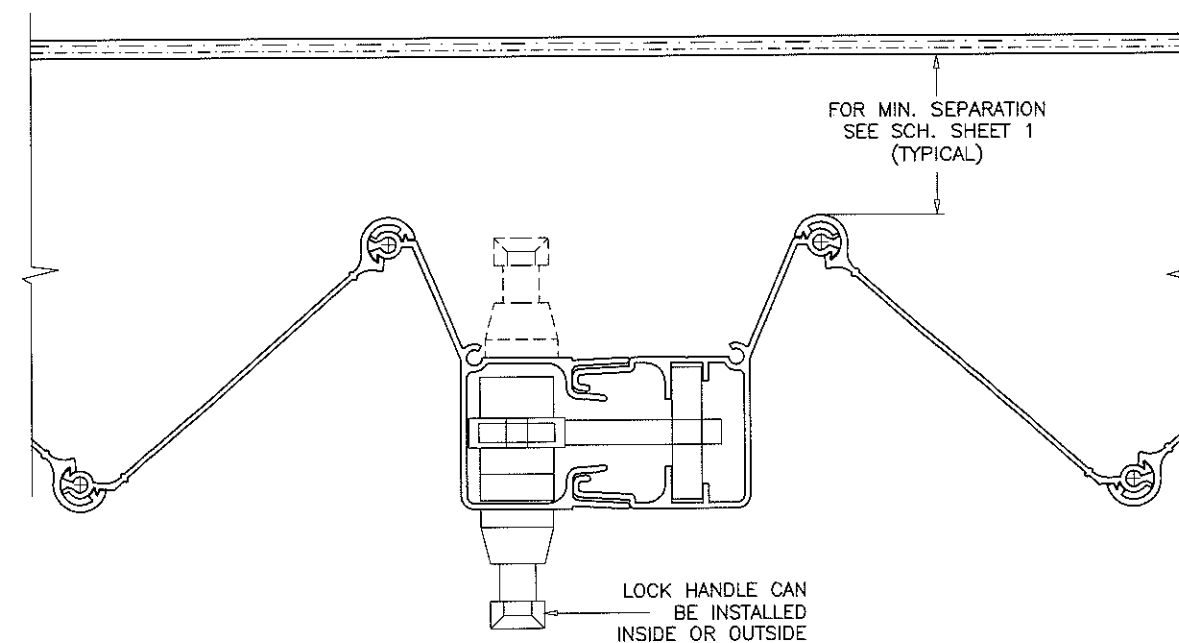
**FEMALE LOCKING SLAT TYPE 2**  
6063-T6



**MALE LOCKING SLAT TYPE 2**  
6063-T6



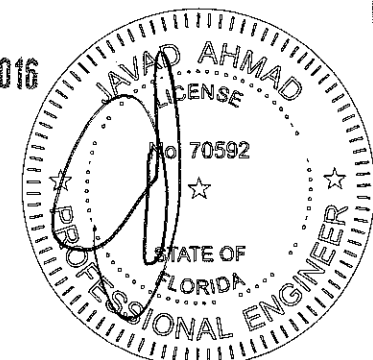
**ALT. LOCKING SLATS TYPE 1**



**ALT. LOCKING SLATS TYPE 2**

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 16-0713.01  
Expiration Date 09/15/2021  
By *[Signature]*  
Miami Dade Product Control

AUG 01 2016

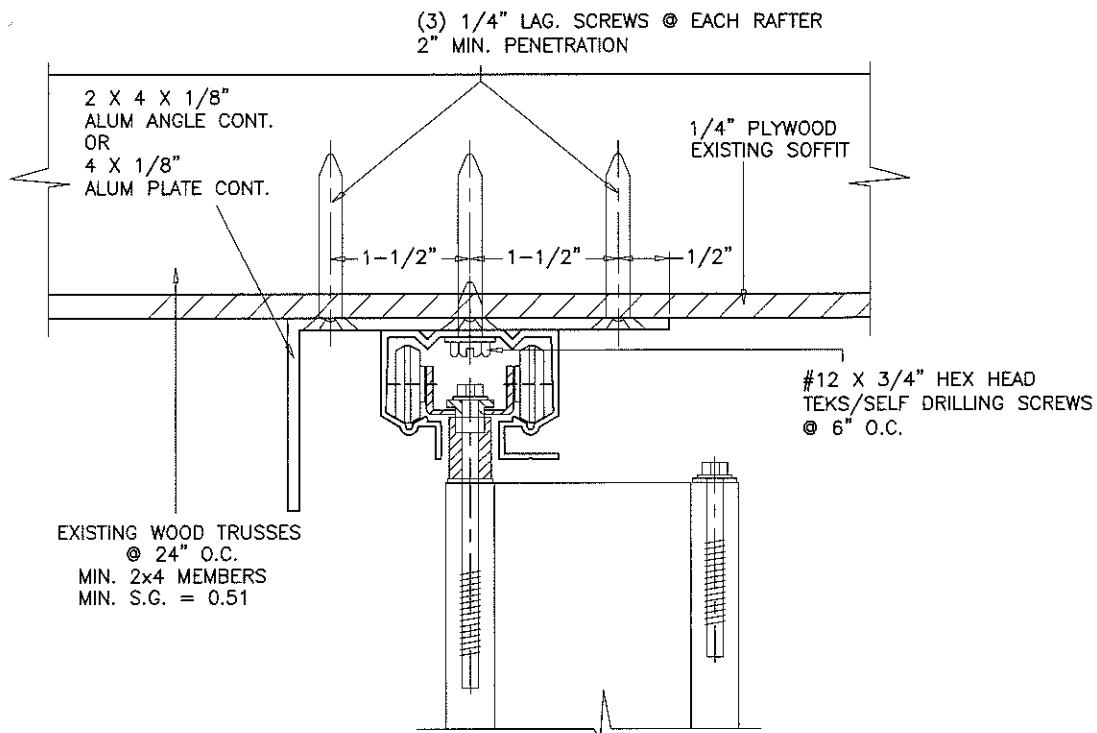


**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
ACCORDION/10-07SOSF

DELTA-301 ALUMINUM ACCORDION SHUTTER  
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL(305) 225-1393 FAX(305) 225-1322

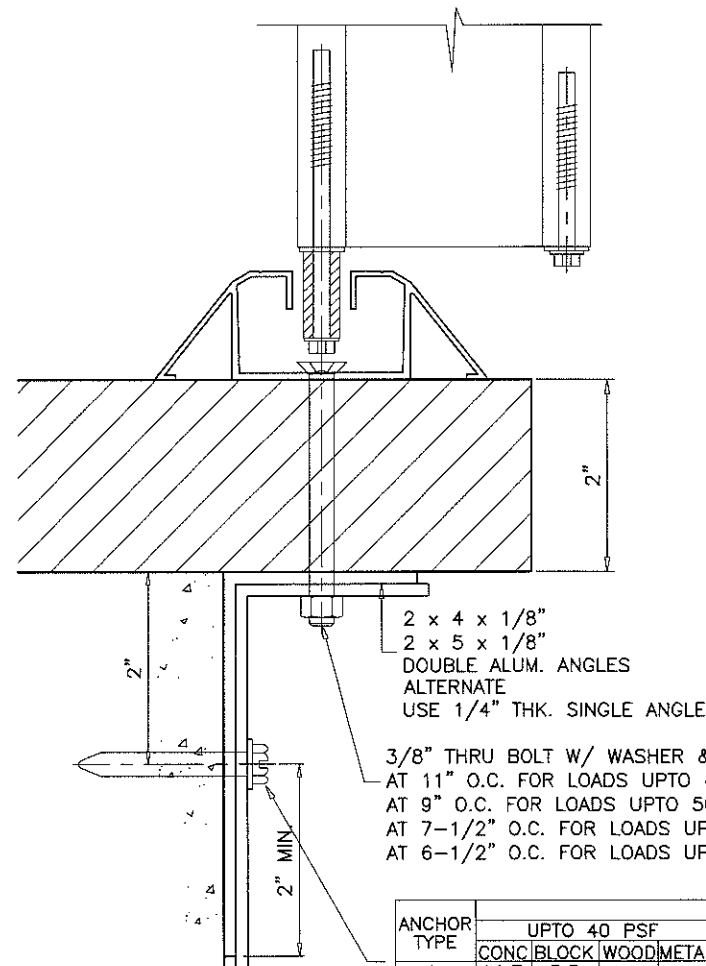
revisions:	no	date	by	description
	A	02.01.12		ALT. LOCKING SLATS ADDED
	B	10.20.14		NO CHANGE THIS SHEET
	C	07.27.16		EDITORIAL CHANGES

date: 12-06-10  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:  
drawing no.  
10-07  
sheet 7.1 of 11



#### HEADER CONNECTION TO WOOD TRUSSES

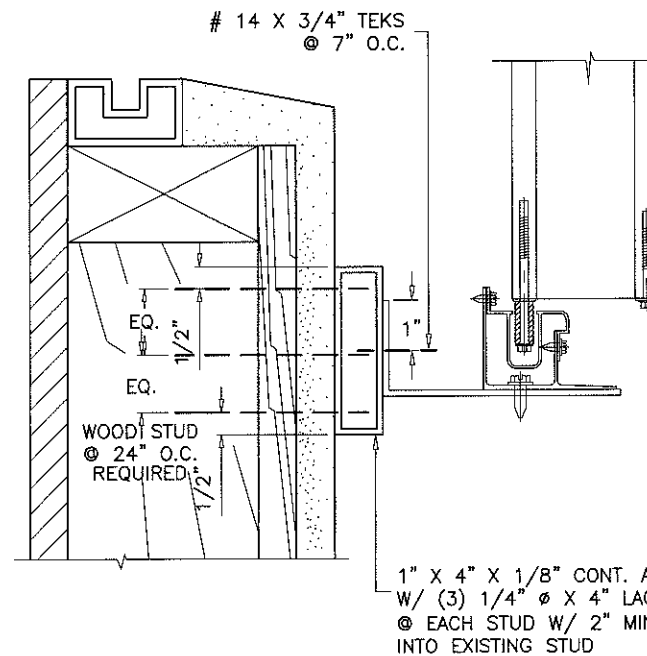
FOR SHUTTER HEIGHT OF 72" MAX. DESIGN LOAD = 72 PSF  
FOR SHUTTER HEIGHT OF 84" MAX. DESIGN LOAD = 62 PSF  
FOR SHUTTER HEIGHT OF 96" MAX. DESIGN LOAD = 54 PSF  
FOR SHUTTER HEIGHT OF 108" MAX. DESIGN LOAD = 48 PSF



#### COUNTER TOP CONDITION

(PASS THRU WINDOW)  
MAX SHUTTER HEIGHT = 6 FT.

ANCHOR TYPE	ANCHOR SPACING INCHES							
	UPTO 40 PSF		UPTO 50 PSF		UPTO 60 PSF		UPTO 70 PSF	
A	CONC	11.7	WOOD	3.5	CONC	9.3	WOOD	7.8
B	CONC	12	WOOD	3	CONC	8.5	WOOD	7.3
D	CONC	12	WOOD	12	CONC	10.4	WOOD	8.9
E	CONC	7.5	WOOD	6	CONC	5	WOOD	4.3

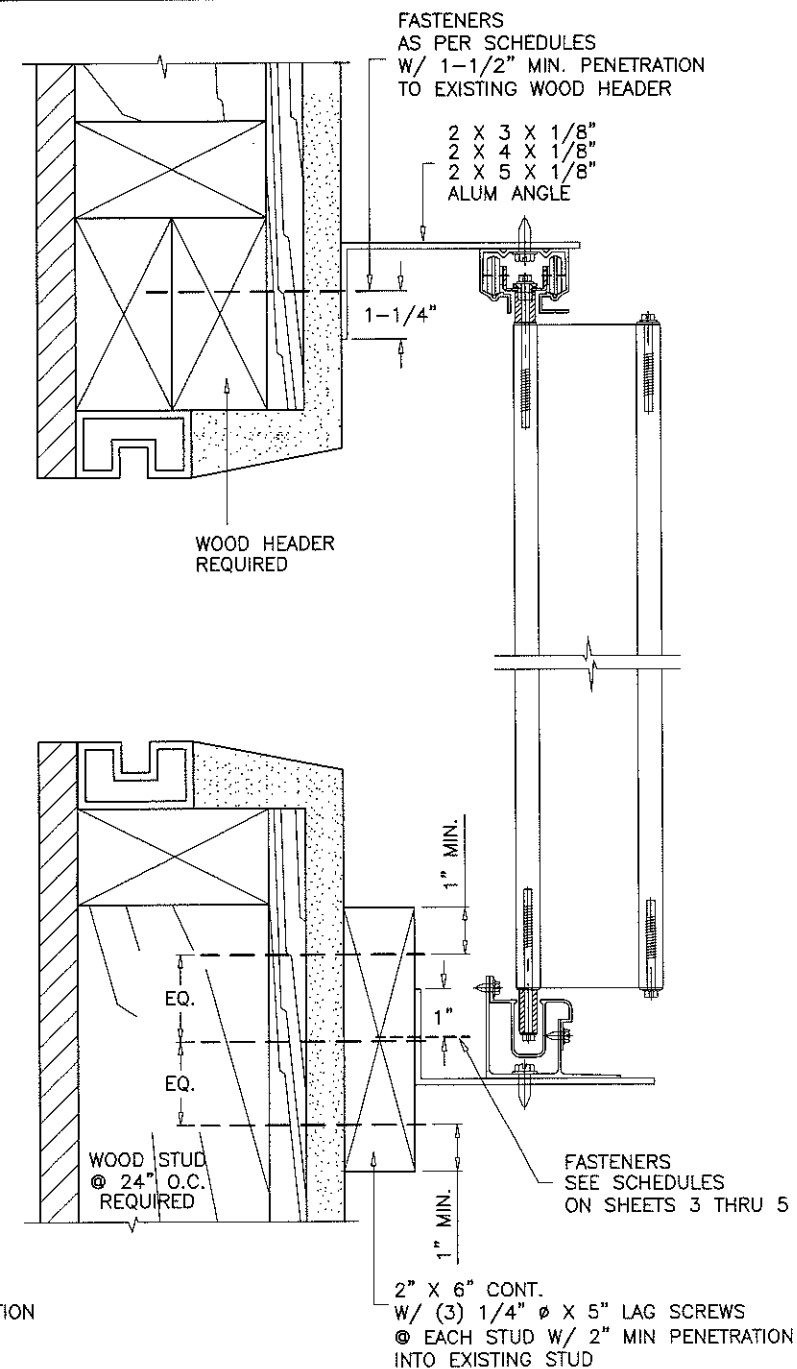


FOR SHUTTER HEIGHT OF 84" MAX. DESIGN LOAD = 62 PSF  
FOR SHUTTER HEIGHT OF 96" MAX. DESIGN LOAD = 54 PSF  
FOR SHUTTER HEIGHT OF 108" MAX. DESIGN LOAD = 48 PSF  
FOR SHUTTER HEIGHT OF 120" MAX. DESIGN LOAD = 43 PSF

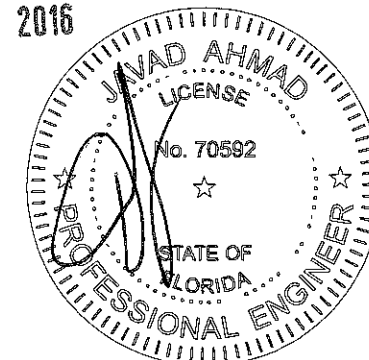
#### INSTALLATION DETAIL ON EXISTING WOOD BUCKS SCALE: 1/4"=1"

ABOVE DETAILS SHOWS CONNECTION OF 2X6 BUCK & 1X4 ALUM TUBE TO WOOD STUDS TO  
PROVIDE A CONTINUOUS SURFACE FOR SHUTTER INSTALLATION.

FOR INSTALLATION DETAILS OF HEADER/SILL TO CONTINUOUS WOOD MEMBERS SEE SHEETS 3 THRU 6.



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712.01  
Expiration Date 09/15/2021  
By: *Heba A. Mub*  
Miami Design Product Control



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL (305) 264-8100 FAX (305) 262-6978  
C.A.N. 3538

DELTA-301 ALUMINUM ACCORDION SHUTTER  
SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL (305) 225-1393 FAX (305) 225-1322

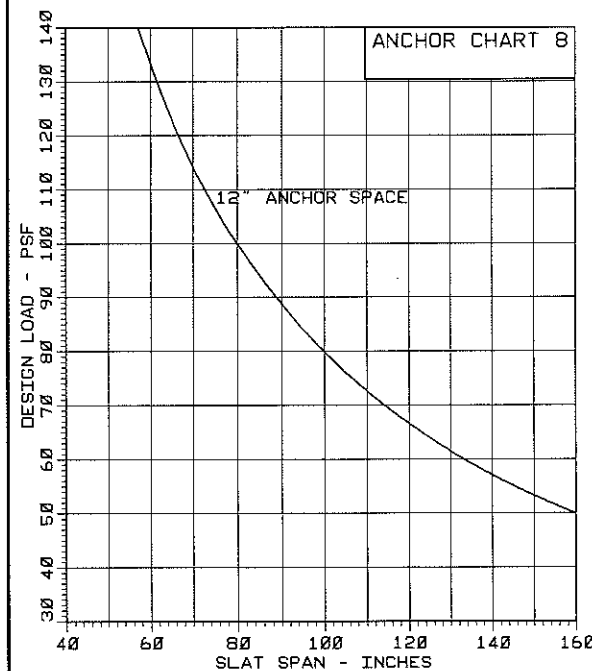
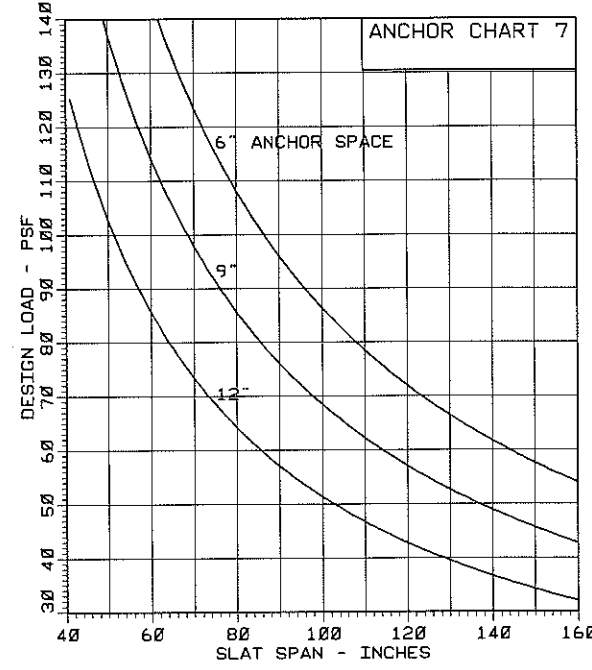
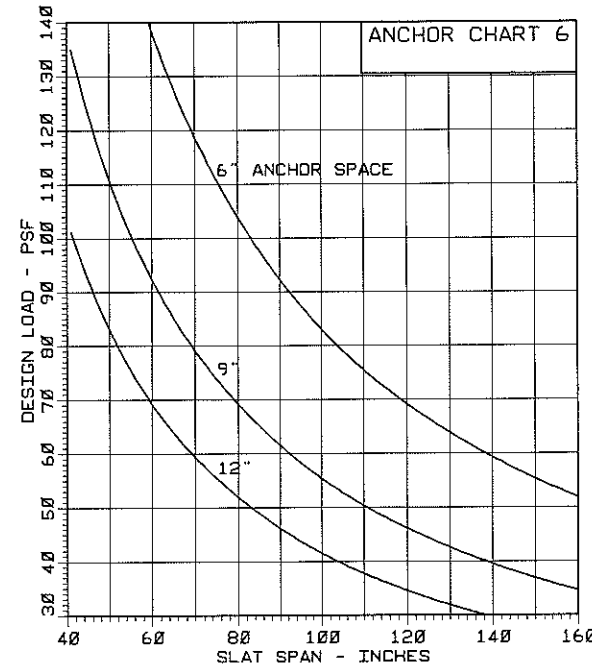
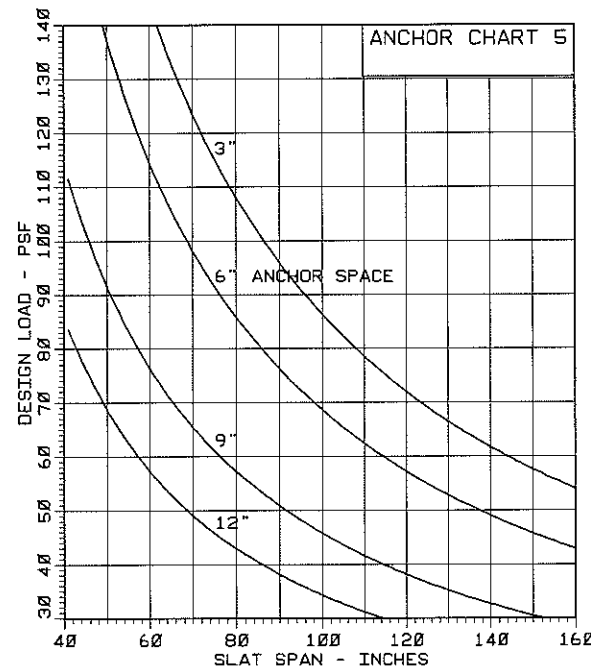
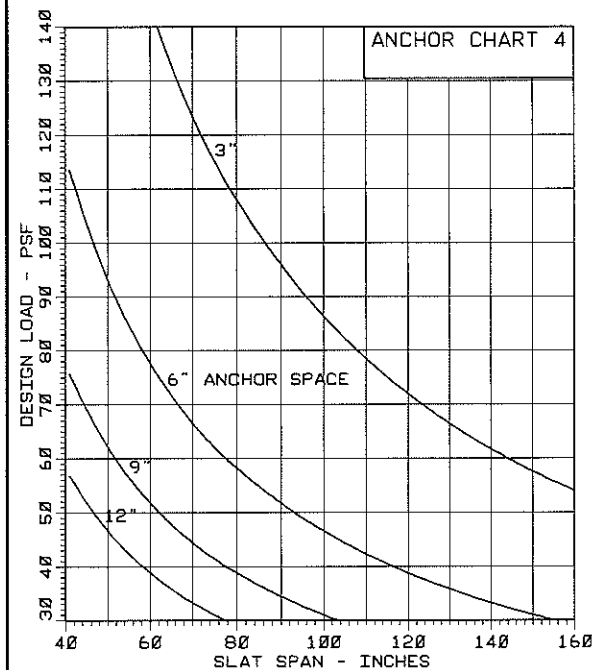
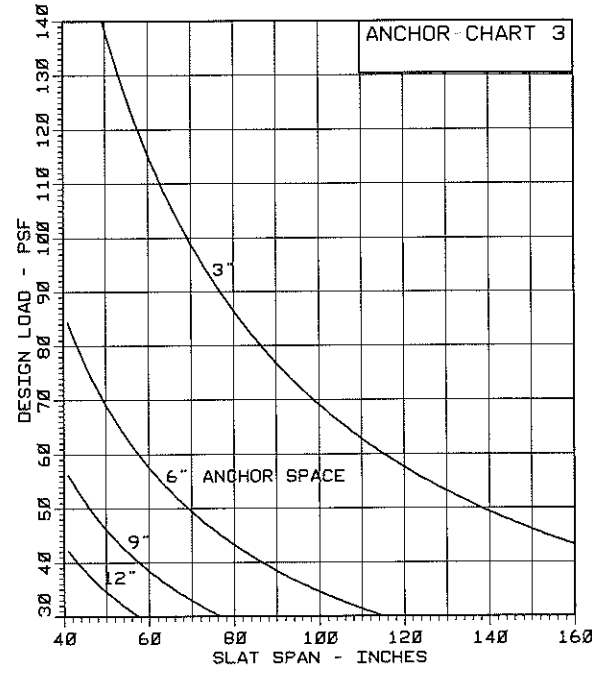
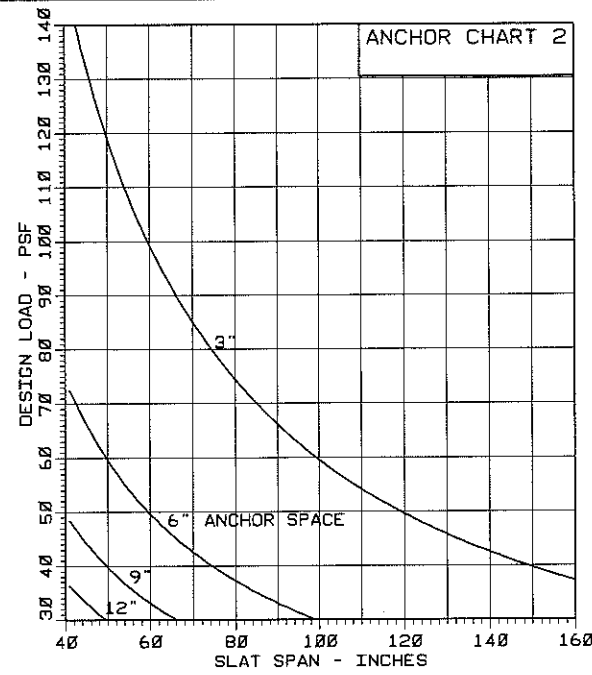
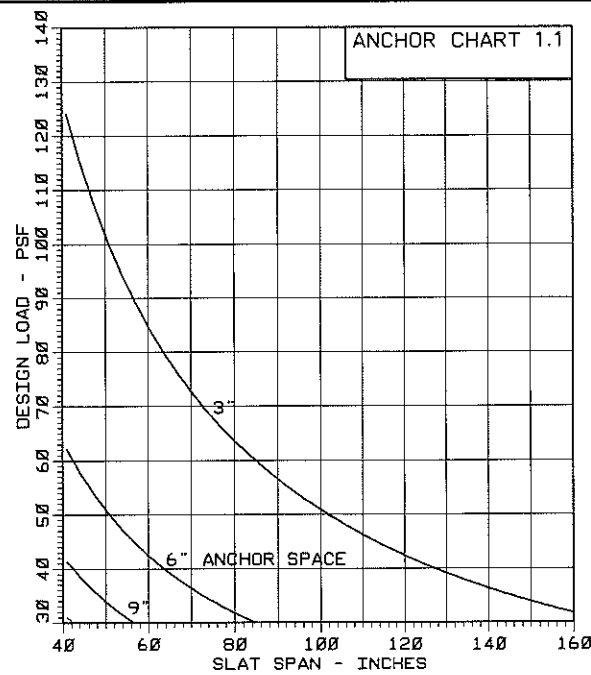
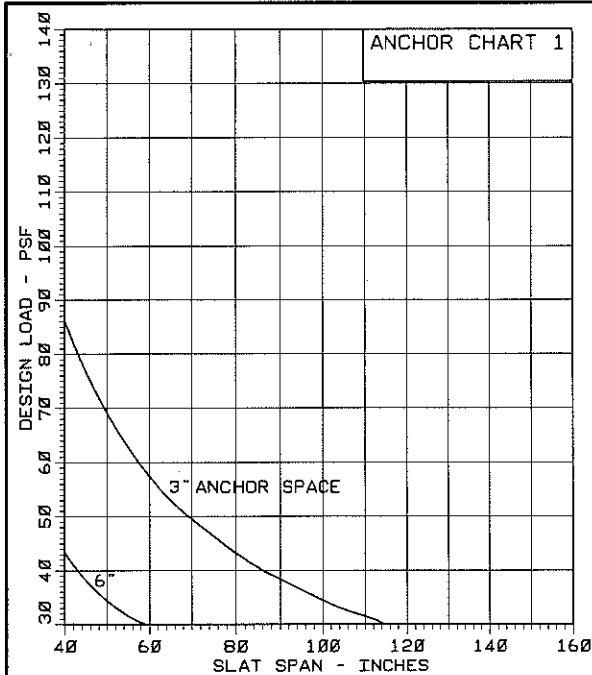


no	date	by	description
A	02.01.12		NO CHANGE THIS SHEET
B	10.20.14		UPDATED TO 2014 FBC
C	07.27.16		EDITORIAL CHANGES

revisions:

date: 12-06-10  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
10-07  
sheet 8 of 11

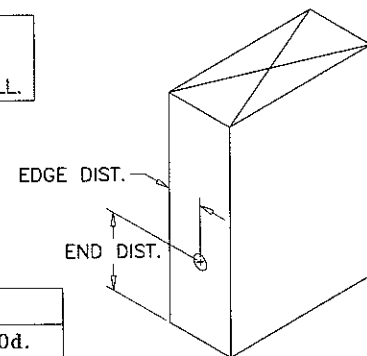


### TYPICAL ANCHORS:

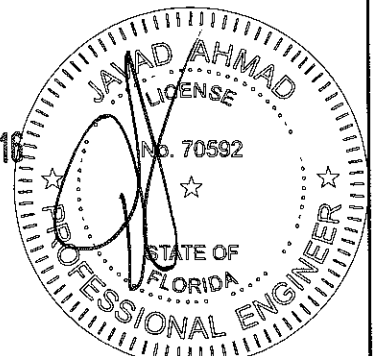
- ANCHOR (A) = 1/4" DIA. ULTRACON (BY ELCO)  
 1-3/4" EMBEDMENT INTO 3000 PSI CONC.  
 1-1/4" EMBEDMENT INTO C-90 BLOCK
- ANCHOR (B) = 1/4" DIA. TAPCON (BY ITW)  
 1-3/4" EMBEDMENT INTO 3000 PSI CONC.  
 1-1/4" EMBEDMENT INTO C-90 BLOCK
- ANCHOR (C) = 1/4" RAWL CALK-IN (BY POWERS)  
 1" EMBEDMENT INTO 3000 PSI CONC.  
 OR C-90 BLOCK  
 2" MIN. EDGE DIST.
- ANCHOR (D) = 1/4" DIA. LAG SCREWS  
 1-1/2" MIN PENETRATION INTO WOOD(S.G.=0.55)
- ANCHOR (E) = 1/4" DIA. KWIK-FLEX SELF DRILLING SCREWS  
 INTO METAL STRUCTURES  
 (STEEL OR ALUMINUM 1/8" MIN. THICK.)

USE CHARTS 1 THRU 8 TO VERIFY ANCHOR REQUIREMENTS AND STRESS LIMITATIONS OF LOAD/SPAN COMBINATIONS FOR HEADER AND SILL.

FASTENER SPACING IN CONC./MASONRY				
CHARTS ARE BASED ON TYPICAL EDGE DISTANCE = 10d. FOR LESSER EDGE DISTANCE DECREASE SPACING BY MULTIPLYING WITH THE FACTOR BELOW				
EDGE DIST.	10d=2-1/2"	8d=2"	6d=1-1/2"	5d=1-1/4"
FACTOR	1.00	0.71	0.57	0.50
EXAMPLE: FOR 3" EDGE DIST. SPACING = 12" O.C. (FROM CHART) FOR 2" EDGE DIST. SPACING = 12 X .71 = 8.5 O.C.				
TYPICAL EDGE DISTANCE IN WOOD = 3/4" TYPICAL END DISTANCE IN WOOD = 1" NO REDUCTION FACTOR IS REQUIRED				



PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 16-0712.01  
 Expiration Date 09/15/2021  
 By: *[Signature]*  
 Miami Data Product Control

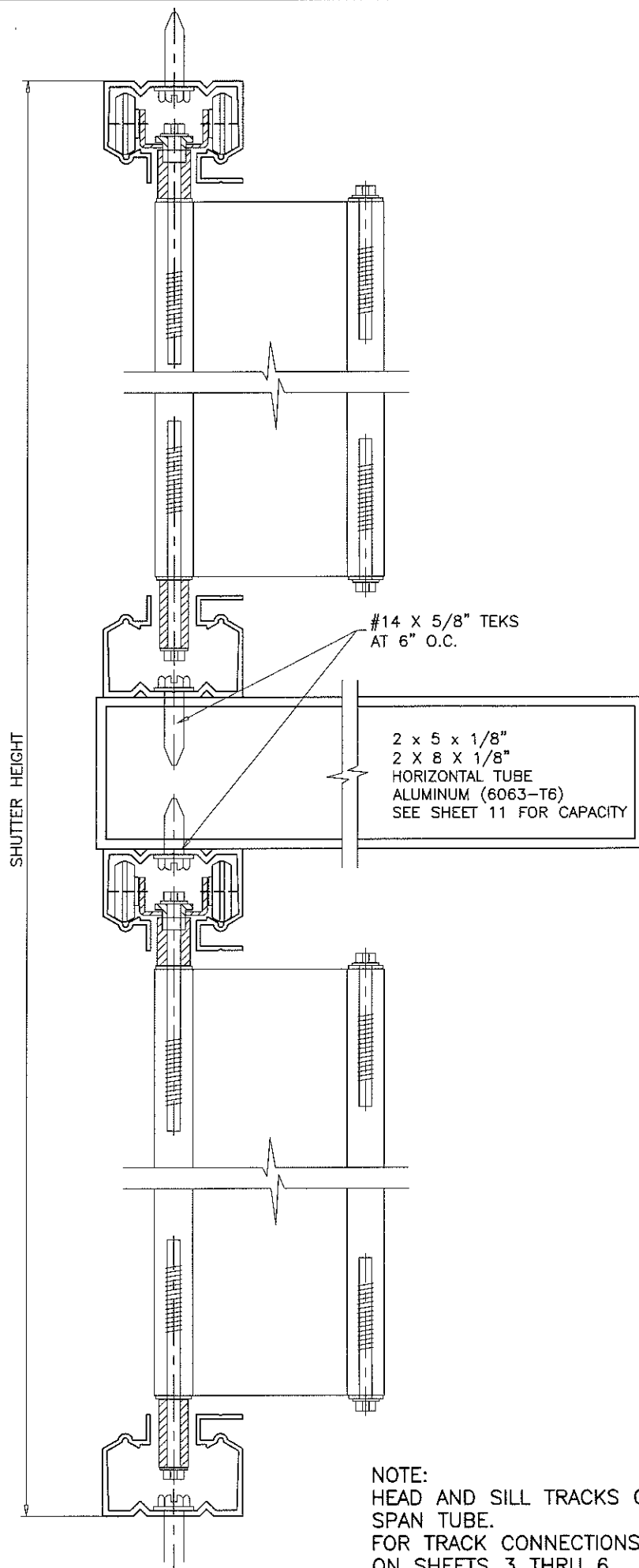


**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 (C.A.N. 3538)

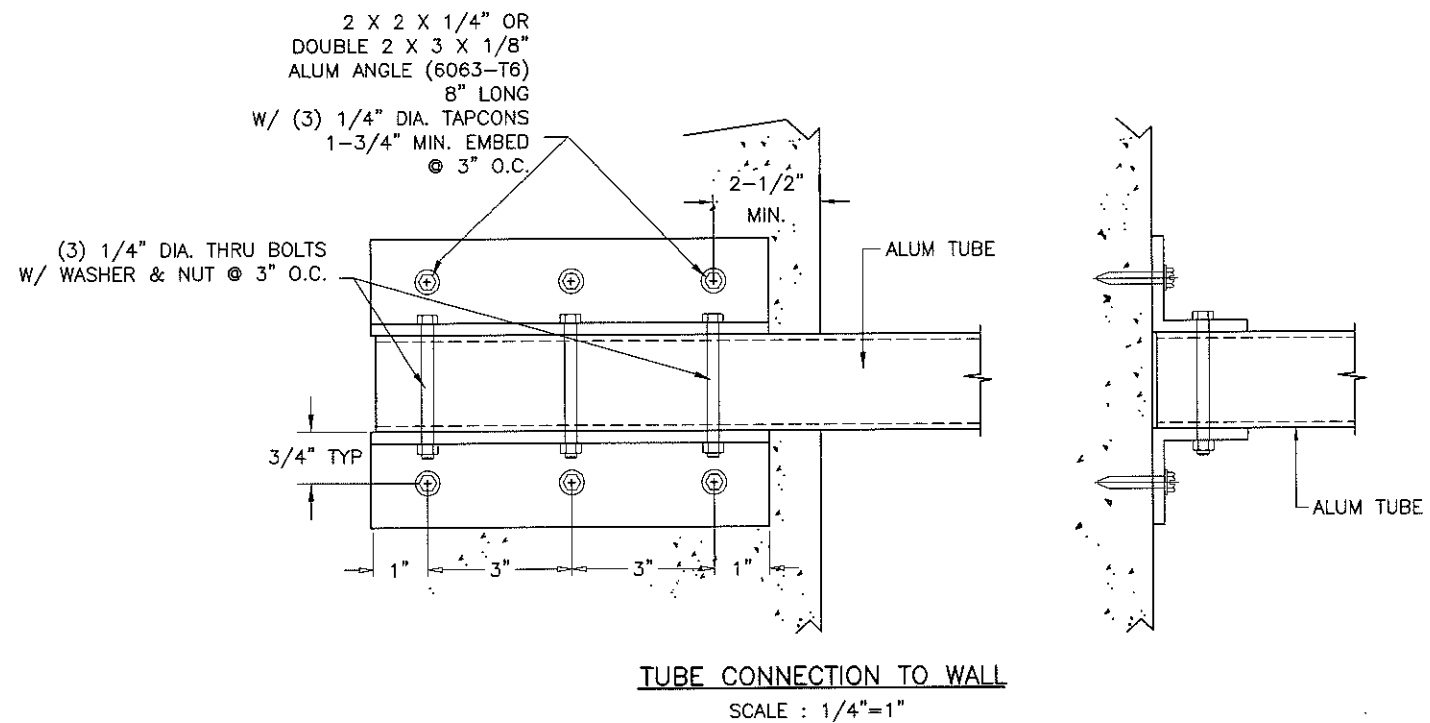
DELTA-301 ALUMINUM ACCORDION SHUTTER  
 SLAS INC.  
 13690 S.W. 142 AVE. #28  
 MIAMI, FL. 33186  
 TEL(305) 225-1393 FAX(305) 225-1322

revisions:	no	date	by	description
	A	02.01.12		NO CHANGE THIS SHEET
	B	10.20.14		UPDATED TO 2014 FBC
	C	07.27.16		EDITORIAL CHANGES

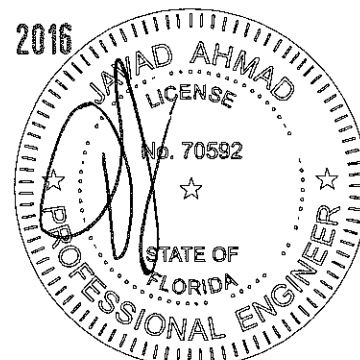
date: 12-06-10  
 scale: 1/2" = 1"  
 dr. by: HAMID  
 chk. by:  
 drawing no.  
 10-07  
 sheet 9 of 11



NOTE:  
HEAD AND SILL TRACKS CAN BE USED IN ANY COMBINATIONS AT  
SPAN TUBE.  
FOR TRACK CONNECTIONS TO ALUMINUM TUBE SEE ANCHOR CHARTS  
ON SHEETS 3 THRU 6.



PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712.01  
Expiration Date 09/15/2021  
By: *[Signature]*  
Miami Dade Product Control



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173  
TEL. (305) 264-8100 FAX. (305) 262-6978

**af c**  
ACCORDION/10-07SOSF

---

DELTA-301 ALUMINUM ACCORDION SHUTTER

SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL(305) 225-1393 FAX(305) 225-1322

---

revisions:		by	description
no	date		
A	02.01.12		NO CHANGE THIS SHEET
B	10.20.14		NO CHANGE THIS SHEET
C	07.27.16		EDITORIAL CHANGES

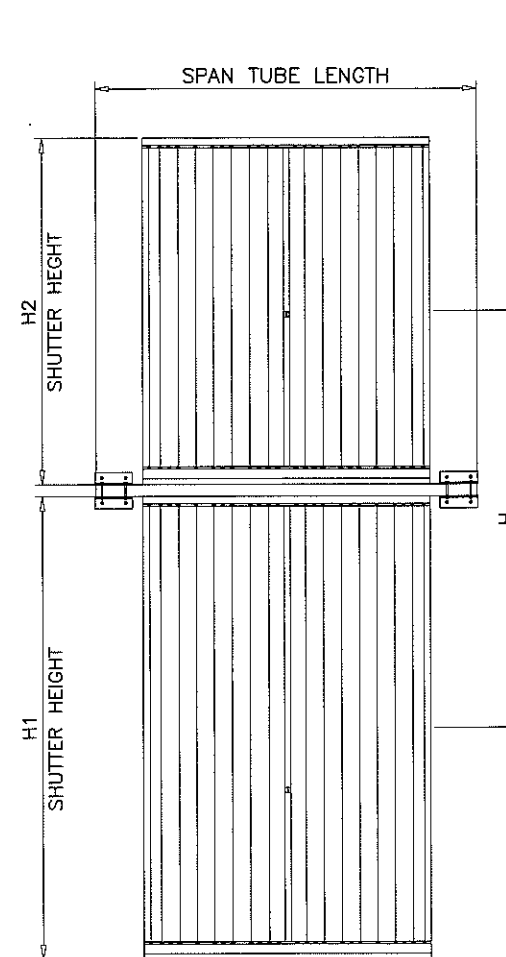
---

date: 12-06-10  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

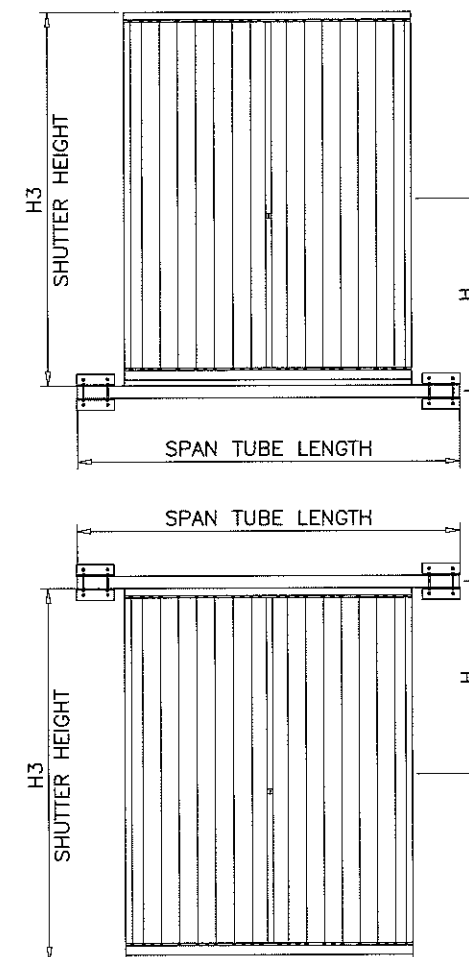
drawing no.  
**10-07**  
sheet 10 of 11

DESIGN LOAD CAPACITY - PSF			
TRIBUTARY HEIGHT (H)	SPAN TUBE LENGTH	2 X 5 X 1/8" ALUM TUBE	2 X 8 X 1/8" ALUM TUBE
48"	96"	100.0	100.0
60"		100.0	100.0
72"		100.0	100.0
84"		86.0	100.0
96"		75.3	91.0
108"		66.9	82.0
120"		60.2	72.0
132"		54.8	60.0
144"		46.0	46.0
156"		34.0	34.0
160"		30.0	30.0
48"	102"	100.0	100.0
60"		100.0	100.0
72"		83.7	100.0
84"		71.7	100.0
96"		62.8	91.0
108"		55.8	82.0
120"		50.2	72.0
132"		45.7	60.0
144"		41.8	46.0
156"		34.0	34.0
160"		30.0	30.0
48"	108"	100.0	100.0
60"		84.6	100.0
72"		70.5	100.0
84"		60.4	100.0
96"		52.9	91.0
108"		47.0	82.0
120"		42.3	72.0
132"		38.5	60.0
144"		35.3	46.0
156"		32.5	34.0
160"		30.0	30.0
48"	114"	89.9	100.0
60"		71.9	100.0
72"		59.9	100.0
84"		51.4	100.0
96"		45.0	91.0
108"		40.0	82.0
120"		36.0	72.0
132"		32.7	60.0
144"		30.0	46.0
156"		27.7	34.0
160"		27.0	30.0
48"	120"	77.1	100.0
60"		61.7	100.0
72"		51.4	100.0
84"		44.1	100.0
96"		38.5	91.0
108"		34.3	82.0
120"		30.8	72.0
132"		28.0	60.0
144"		25.7	46.0
156"		23.7	34.0
160"		23.1	30.0

DESIGN LOAD CAPACITY - PSF			
TRIBUTARY HEIGHT (H)	SPAN TUBE LENGTH	2 X 5 X 1/8" ALUM TUBE	2 X 8 X 1/8" ALUM TUBE
48"	126"	66.6	100.0
60"		53.3	100.0
72"		44.4	100.0
84"		38.1	100.0
96"		33.3	87.8
108"		29.6	78.0
120"		26.6	70.2
132"		24.2	60.0
144"		22.2	46.0
156"		20.5	34.0
160"		-	30.0
48"	132"	57.9	100.0
60"		46.3	100.0
72"		38.6	100.0
84"		33.1	90.8
96"		29.0	79.5
108"		25.7	70.7
120"		23.2	63.6
132"		21.1	57.8
144"		-	46.0
156"		-	34.0
160"		-	30.0
48"	138"	50.7	100.0
60"		40.6	100.0
72"		33.8	96.4
84"		29.0	82.6
96"		25.3	72.3
108"		22.5	64.3
120"		20.3	57.8
132"		-	52.6
144"		-	46.0
156"		-	34.0
160"		-	30.0
48"	144"	44.6	100.0
60"		35.7	100.0
72"		29.7	88.0
84"		25.5	75.4
96"		22.3	66.0
108"		-	58.7
120"		-	52.8
132"		-	48.0
144"		-	44.0
156"		-	34.0
160"		-	30.0



$$\text{TRIBUTARY HEIGHT (H)} = \frac{H1 + H2}{2}$$

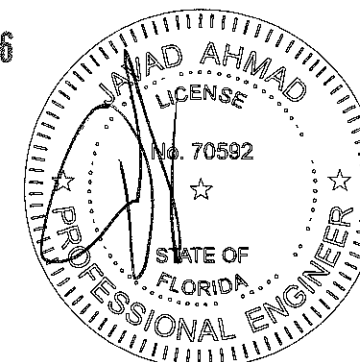


$$\text{TRIBUTARY HEIGHT (H)} = \frac{H3}{2}$$

TYPICAL ELEVATIONS

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 16-0712.01  
Expiration Date 09/15/2021  
By: *[Signature]*  
Miami Design Product Control

AUG 01 2016



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 35398)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
ACCORDION/10-07SOSF

DELTA-301 ALUMINUM ACCORDION SHUTTER

SLAS INC.  
13690 S.W. 142 AVE. #28  
MIAMI, FL. 33186  
TEL.(305) 225-1393 FAX(305) 225-1322

revisions:	no.	date	by	description
	A	02.01.12		NO CHANGE THIS SHEET
	B	10.20.14		NO CHANGE THIS SHEET
	C	07.27.16		EDITORIAL CHANGES

date: 12-06-10

scale: 1/2" = 1"

dr. by: HAMID

chk. by:

drawing no.  
**10-07**

sheet 11 of 11